ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
Bruhat Bengaluru Mahanagara Palike

EXECUTIVE ENGINEER, RR NAGAR DIVISION

DETAILED PROJECT REPORT

Name of Work : Comprehensive Development of Roads & Drains in JP Park, Yeshawanthapura, Jalahalli and Surrounding areas in W No.16, 17 and 37 under PACKAGE- 2022-23 RRN-DIV-(15).

Est Cost : 1100.00 Lakhs

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Chapter-1

INTRODUCTION

1.1 GENERAL

Bangalore is the capital of Karnataka. It is located on the Deccan Plateau in the south- eastern part of Karnataka. Bangalore is India's third most populous city and fifth-most populous urban agglomeration. Bangalore is well known as a hub for India's Information Technology sector. It is among the top 10 preferred entrepreneurial locations in the world Bangalore is sometimes referred to as the "Silicon Valley of India" (or "IT capital of India") because of its role as the nation's leading information technology (IT) exporter. Indian technological organizations ISRO, Infosys, Wipro and HAL are headquartered in the city. A demographically diverse city, Bangalore is the second fastest-growing major metropolis in India.

1.2 GEOGRAPHY

Bangalore lies in the southeast of the South Indian state of Karnataka. It is in the heart of the Mysore Plateau (a region of the larger Precambrian Deccan) at an average elevation of 900 m (2,953 Ft.).It is located at 12.97°N 77.56°E and covers an area of 741 km2 (286 sq mi).The majority of the city of Bangalore lies in the Bangalore Urban district of Karnataka and the surrounding rural areas are a part of the Bangalore Rural district. The topology of Bangalore is flat except for a central ridge running NNE-SSW. The highest point is Vidyaranyapura Doddabettahalli, which is 962 m (3,156 ft) and lies on this ridge. No major rivers run through the city, though the Arkavathi and South Pennar cross paths at the Nandi Hills, 60 km (37 mi.) to the north. River Vrishabhavathi, a minor tributary of the Arkavathi, arises within the city at Basavanagudi and flows through the city. The rivers Arkavathi and Vrishabhavathi together carry much of Bangalore's sewage. A sewerage system, constructed in 1922, covers 215 km² (133 mi²) of the city and connects with five sewage treatment centers located in the periphery of Bangalor.

1.3 CIVIC ADMINISTRATION

The **Bruhat Bengaluru Mahanagara Palike (BBMP)**, is the administrative body responsible for civic amenities and some infrastructural assets of the Greater Bangalore metropolitan area.[1] It is the

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fourth largest Municipal Corporation in India being responsible for a population of 6.8 million in an area of 741 km^2. Its boundaries have expanded more than 10 times over the last six decades. Its roles and responsibilities include the "orderly development of the city" — zoning and building regulations, health, hygiene, licensing, trade and education, as well as quality of life issues such as public open space, water bodies, parks and greenery. The BBMP represents the third level of government (the Central Government and State Government being the first two levels). BBMP is run by a city council composed of elected representatives, called "corporators", one from each of the wards (localities) of the city

1.3.1 HISTORY

The history of municipal governance of Bangalore dates back to 27 March 1862, when nine leading citizens of the old city formed a Municipal Board under the Improvement of Towns Act of 1850 with a similar Municipal Board was also formed in the newer Cantonment area.[3] The two boards were legalised in 1881, and functioned as two independent bodies called the Bangalore City Municipality and the Bangalore Civil and Military Station Municipality (Cantonment). The following year, half of the municipal councillors were permitted to be elected; property tax was introduced and greater powers given over police and local improvement.

After Indian independence, the two Municipal Boards were merged to form the Corporation of the City of Bangalore in 1949, under the Bangalore City Corporation Act. The corporation then consisted of 70 elected representatives and 50 electoral divisions and the office of Mayor introduced for the first time. The first elections were held in 1950.

The name of the council changed — first to Bangalore City Corporation (BCC) and then to Bangalore Mahanagara Palike

In 1991 the BMP expanded to include 87 wards in 1991 and 100 wards in 1995. The council also included 40 additional members drawn from the parliament and state legislature.

In November 2006, the BMP Council was dissolved by the state government upon the completion of its five year term. In January 2007, the Karnataka Government issued a notification to merge 100 wards of the erstwhile Bangalore Mahanagara Palike with seven City Municipal Councils (CMC)s, one Town Municipal Council (TMC) and 111 villages around the city to form a single administrative

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area.[4] The process was completed by April 2007 and the body was renamed 'Bruhat Bangalore Mahanagara Palike'(Greater Bangalore Municipal Corporation).

1.3.2 ZONES

BBMP is divided into Eight zones, for the ease of administration each administered by a Zonal Commissioner: Every zone has a Joint Commissioner, who is answerable to the BBMP commissioner. The decentralization hasn't been very effective in addressing the problems in administration. The end of 2013 saw discussions in various circles about dividing BBMP into more parts.

1.3.3 ROLES AND RESPONSIBILITIES

The Bruhat Bangalore Mahanagara Palike is the fourth largest Municipal Corporation in India, after the city corporations that administer Mumbai, Delhi and Chennai. The BBMP is responsible for infrastructural assets of the Greater Bangalore Metropolitan area, spread across 741 km^2, with a population of 6.8 million.

Its roles and responsibilities include the "orderly development of the city "zoning and building regulations, health, hygiene, licensing, trade and education, as well as quality of life issues such as lung spaces, water bodies, parks and greenery

1.3.4 Project Background

Bruhat Bengaluru Mahanagara Palike (BBMP) is desirous of obtaining consultancy services for the preparation of Design Report for roads & Drains. BBMP has taken up a programme ofComprehensive Development of Roads & Drains in JP Park, Yeshawanthapura, Jalahalli and Surrounding areas in W No.16, 17 and 37 under PACKAGE- 2022-23 RRN-DIV-(15).The growth in vehicular traffic in this area and associated activities necessitates the widening of the project road to adequate width , since the ward and area located is ongoing development with UGD and Water line the development is most necessary with road and Drainage.

M/S Civil Quality Consultants & Engineers has been appointed as a consultant to perform the services. This Report deals with the approach, methodology, investigation details of project roads and the role of Consultants.

1.3.5 Loaction and Teerain Condition

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Name of Work:- Comprehensive Development of Roads & Drains in JP Park, Yeshawanthapura, Jalahalli and Surrounding areas in W No.16, 17 and 37 under PACKAGE- 2022-23 RRN-DIV-(15).

The Project road lies under Rajarajeshwari Nagara Constituency Ward 160 Under RR Nagara Sub Division

Estimate Name:- Comprehensive Development of Roads & Drains in JP Park, Yeshawanthapura, Jalahalli and Surrounding areas in W No.16, 17 and 37 under PACKAGE- 2022-23 RRN-DIV-(15).

Project Cost Rs.1100.00 lakhs

Above Details Provided By Concern Assistant Engineer ,Assistant Executive Engineer & Executive Engineer BBMP RR Nagara Division.

OBJECTIVES

The Objectiveof the Consultancy services is to recommend an Optimal proposal for implementation which comprises of:

- Road Inventory as per IRC SP 19
- Flexible Pavement As per IRC 37-2018
- Rigid Pavement Design As per IRC SP 62-2014
- Prepare Bill of Quantities and Estimate based on Current Schedule Rate of PWD Bangalore Circle 2021-22

Note: Estimate and Design of Roads, Drain are Prepared as told By Concern AE, AEE and EE

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Chapter -2

INVESTIGATION & SURVEYS

2.1 GENERAL

A site investigation is the process of the collection of information, the appraisal of data, assessment Site investigation is carried out in order to enable a geotechnical and geo-environmental assessment of the road conditions and analysis of the engineering and environmental considerations related to the proposed development. Subsurface condition at a road may be relatively uniform or extremely variable and will largely determine the complexity of the problems to be faced in both design and construction. The subsurface investigation must therefore be of sufficient extent to provide enough information for a thorough understanding of the interaction of proposed work

The basic aim of field investigation and analysis is to identify technically and economically feasible solution to improvements / widening of the existing road, if any. These improvements include the formulation of suitable cross section through widening / improvements to the existing pavement drain system, footpath and facilities to the road users. The various engineering surveys/investigations of the road sections include

- Reconnaissance Survey
- Visual Topographical Survey
- Road Inventory Survey
- Pavement Condition Survey.
- Road signs, safety devices
-

2 .1.1 RECONNAISSANCE SURVEY

Reconnaissance Survey of the road, considered for improvements, has been carried out to identify the general condition of roads, drains, culverts and bridges for further surveys/investigations, to understand kind of establishments along the stretches of roads and to work out land acquisition scheme. Making use of the observations / data collected during reconnaissance survey, detailed schedule for surveys/ investigations required for the project has been finalized.

2.1.2 VISUAL TOPOGRAPHICAL SURVEYS

A Topographic Survey is a survey that gathers data about the elevation of points and presents them as contour lines on a plot. The purpose of a topographic survey is to collect survey data about the natural

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and man-made features of the land, as well as its elevations. Topographic maps are used to show elevations and grading features for architects, engineers, and building contractors Topographic Survey has been conducted all along the corridor by physically measuring the Road Width, Footpath Width, Drain Width, and Alignment of Road and with the aid of Google Maps.

2.1.3 Road Inventory Survey

A detailed inventory and condition survey of road sections has been carried out by making use of well structured inventory data format. It was compiled in tabular form, developed using Excel computer software. Various data collected during the road inventory broadly include

- ✓ Type of terrain.
- ✓ Land use.
- ✓ Carriageway width.
- ✓ Type of surfacing.
- ✓ Shoulder, Median, Drain (Tertiary / Secondary), Footpath-type and width.
- ✓ Road Geometry.
- ✓ Road Furniture.
- ✓ Salient Buildings & Structures.
- ✓ Road Intersection(s) and their details.
- ✓ Land width (ROW).
- ✓ Culverts, bridges and other structures (type, size, span arrangement and location).
- ✓ General drainage conditions.

2.1.4 PAVEMENT CONDITION SURVEY

The visual survey is conducted and various details of the existing pavement are recorded.

- ✓ Pavement condition (extent of potholes, cracks, rutting, evenness, etc.)
- ✓ Shoulder condition (surface, potholes, height above or below carriageway, evenness)
- ✓ Side drain (type, condition)
- ✓ To assess the condition and strength data for developing improvement proposals and related designs

2.1.5 Road signs, safety devices

Road signs give information about the road conditions ahead, provide instructions to be followed at the major crossroads or junctions, warn or guide drivers, and ensure proper functioning of road traffic.

Being unaware of road signs is akin to throwing caution to the wind. It can lead to loss of life and property The provision of Road Signs, Pavement Markings, Safety Barriers, Railings, Delineators, Chevron Markings, and Traffic Attenuators are made in the Detailed Estimate.

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Chapter -3

DESIGN STANDARD & SPECIFICATION

Planning and design of roads & CD structures, pedestrian facilities and street furniture are essentially based on the IRC standards and MoRT&H specifications. Whenever, the codes / Standards are silent on some of the aspects, the same has been planned / designed based on Sound engineering practices. Design standards relevant to the project road along with the Broad list of design parameters and the relevant IRC codes/specifications have been detailed

Sl No	Design parameters	Reference Code
1	Geometric Designs Standard	As per IRC:86-2018
2.	Road Furniture ▪ Road Markings ▪ Road Signs	 As per IRC:35-1997 As per IRC:67-2012
3	Road Capacity	As per IRC:106-1990
4	Pavement Design	As per IRC:37-2018
5	Overlay Design	As per IRC:81-1997
6	CC Pavement(Rigid)	As per IRC: 62-2014
7	Road Drainage	As per IRC: SP: 50-2013
8	Culverts	As per relevant IRC codes and Morth

The project road section passes through plain terrain. Design standards (as appropriate) have been further elaborated under the following heads:

- Geometric Design
- Pavement Design
- Rigid Pavement Design
- Overlay Design
- Drainage
- Road Furniture and Appurtenances
- Bridges and CD Structures

3.1 Design Standards Related to Geometric Design

Design standards related to road geometric along with the suggested design values/ standards and recommended values based on site conditions and data analysis are detailed in table

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Sl No	Design parameters	Design values
1	Design Speed	Design Speed considered is 60 kmph
2.	Geometric Design Standards Carriage width	Two lane carriage way
3	Camber (Bi directional)	2.5% for paved carriage way
4	Super elevation	Limited to 4%
5	Footpath	Minimum width 1.8m
6	Kerb	Barrier/ semi barrier/ Mountable (Barrier type recommended)
7	Extra Widening at Curves	Nil for Radius above 300m
8	Gradient	Maximum Gradient-4.0 % (1 in 25) Minimum Gradient for Drainage - 0.5 % (desirable minimum) & 0.3 % (Absolute minimum).

3.2 Design Standards Related to Pavement Design

Design standards related to Pavement design are essentially based on the guidelinesgiven in IRC: 37 - 2018 "Tentative Guidelines for the Design of Flexible Pavements"The suggested design values / standards and recommended values based on site conditionsand data analysis are detailed in Table and are adapted in the design.

Sl No	Design parameters	Design values
1	Pavement design	RC: 37 2018 Tentative Guidelines for the Design of Flexible Pavements
2	Initial Traffic	In terms of CVPD, vehicles weighing more than 3 ton
3	Traffic growth rate	5%
4	Design Life	10 years
5	Vehicle damage factor	1.5 to 4.5
6	Soil Characteristics	CBR Value

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3.3 Design Standards Related to Rigid Pavement Design

Design standards related to Rigid Oavement are essentially based on the guidelines givenIn IRC: 62 – 2014"Guidelines for Strengthening of Rigid Pavements Using California Bearing Ratio", Penetration Resistance of soil and aggregate Properties

Sl No	Design parameters	Design values
1	Pavement design	IRC: 62- 2014 Tentative Guidelines for the Design of Rigid Pavements
2	Initial Traffic	In terms of CVPD, vehicles weighing more than 3 ton
3	Reliability	85%
4	Design Life	5 to 10 years
5	Equivalency factors	1.22
6	Soil Characteristics	CBR Value

3.4 Design Standards Related to Overlay Design

Design standards related to overlay design are essentially based on the guidelines givenIn IRC: 81 - 1997 "Guidelines for Strengthening of Flexible Road Pavements UsingBenkelman Beam Deflection Technique". The suggested design values / standards and Recommended values based on site conditions and data analysis are detailed in Table and are adapted in the design

Sl No	Design parameters	Design values
1	Overlay Design	RC: 81-1997 "Guidelines for Strengthening of Flexible Road Pavements Using Benkelman BeamDeflection Technique"
2	Design Life	10 years
3	Correction Factors	Temperature Correction Factor Correction for Seasonal Variation (inclusive of correction for moisture content, soil type and rainfall)
4	Minimum Thickness	From structural considerations recommended minimum bituminous overlay thickness is 50 mm BDM(minimum) or 50mm BM (as required) +40mm BC
5	Wearing Course Material	Bituminous Concrete with Crumb Rubber Modified Bitumen

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3.5 Design Standards Related to Road Drainage

Drainage of water from pavement surface is of paramount importance as far as preserving theAssets created by investing huge funds in addition to maintaining the structural soundness and Frictional efficiency of the road. Design standards related to road drainage are essentially based on the Deadlines given in IRC: SP: 42-1994 "Guidelines on Road Drainage" and in IRC: SP: 50 – 2013 delines on Urban Drainage". The suggested design values / standards are detailed in Table

Sl No	Design parameters	Design values
1	Camber	1.7-2 5 % (bi-directional) for carriageway (camber of 3% is adopted)
2	Longitudinal Gradient	Minimum 0 3-05% for satisfactory drainage
3	Drain Type	Cast in situ RCC box drain with Precast RCC cover slab RCC box culverts across cross roads.
4	For Existing Drains	Desilting and Rectification of Damaged Portion

3.6 Design Standards Related to Road Furniture and Appurtenances

Utility and importance of the road are greatly enhanced by installing road furniture and appurtenances at appropriate locations along the project road, which ensures improved road safety. Planning and design of road furniture and appurtenances are as per the guidelines stipulated in IRC. Detailing of each of these components has been done so as to integrate the same with the road improvement scheme. The suggested design values / standards are detailed in table

Sl No	Design parameters	Design values
1	Road Markings	IRC:35-1997 "Code of Practice for Road Markings
2	Road Signs	IRC: 67-2012 "Code of Practice for Road Signs"

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Detailed Brief Note of Work

Estimate Name: Comprehensive Development of Roads & Drains in JP Park, Yeshawanthapura, Jalahalli and Surrounding areas in W No.16, 17 and 37 under PACKAGE- 2022-23 RRN-DIV-(15).

Constituency : Rajarajeshwari Nagara Constituency.

Zone : R.R.Nagar Zone.

Division: RR Nagara Division.

Sub Division: Yaswanthpur Sub Division.

Below Roads identified and Shown by concern Assistant Engineer ward no.16,17 and 37.

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

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CROSS SECTION

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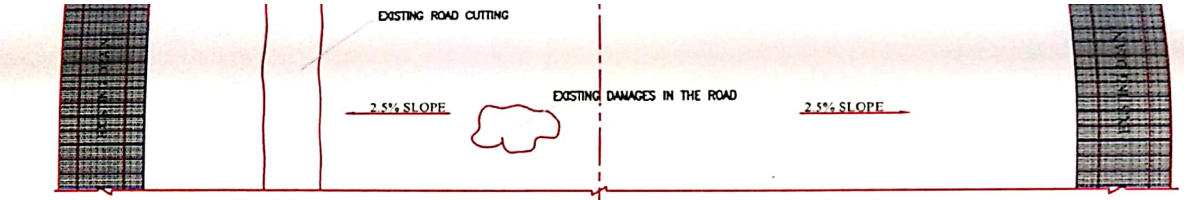
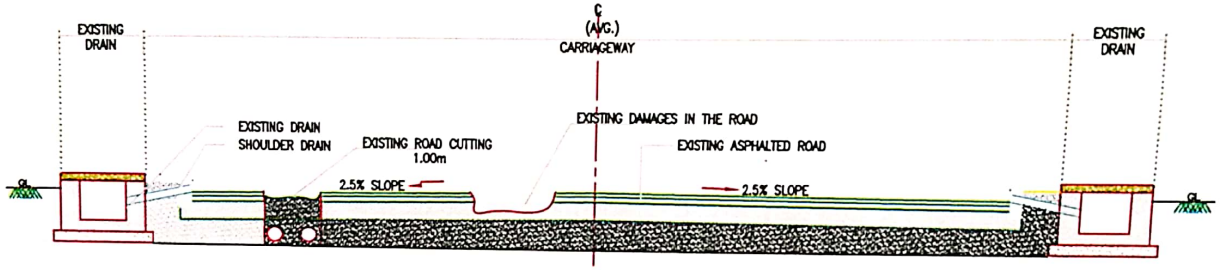
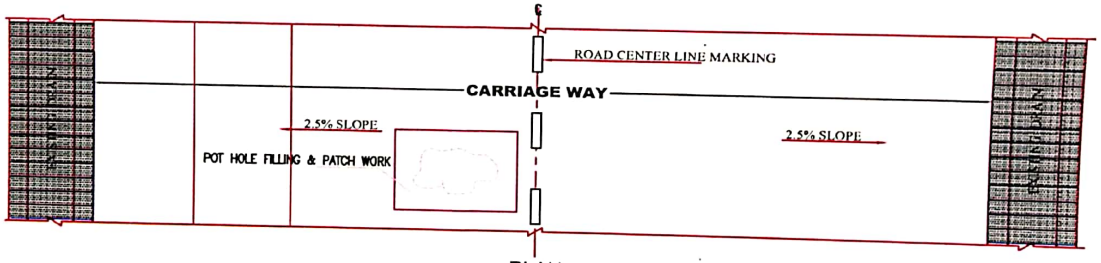


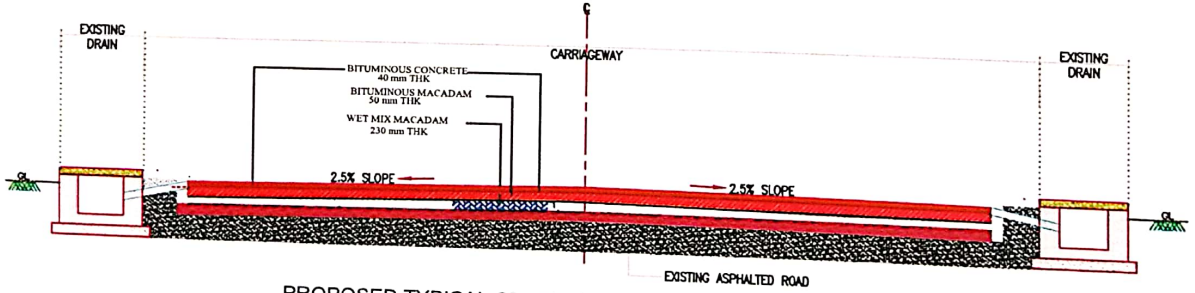
EXISTING PLAN



EXISTING TYPICAL CROSS SECTION



PLAN



PROPOSED TYPICAL CROSS SECTION OF ASPHALT ROAD

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

NOTES:

1. ALL DIMENSIONS AND LEVELS ARE IN METERS
2. FOLLOW FIGURE DIMENSION ONLY. DONOT MEASURE DIMENSIONS
3. LEVELS AND DISTANCE ARE IN METRES.

LEGEND:

REV NO.	DATE	REMARKS

CLIENT: BRUHAT BANGALORE MAHANAGARA PALIKE

ECHO ENGINEER:

PROJECT:

TITLE: EXISTING & PROPOSED CROSS SECTION ROAD

DATE	REV	SCALE	DRAWN	CHECKED	APPROVED
	00	AS SHOWN			SIGNATURE

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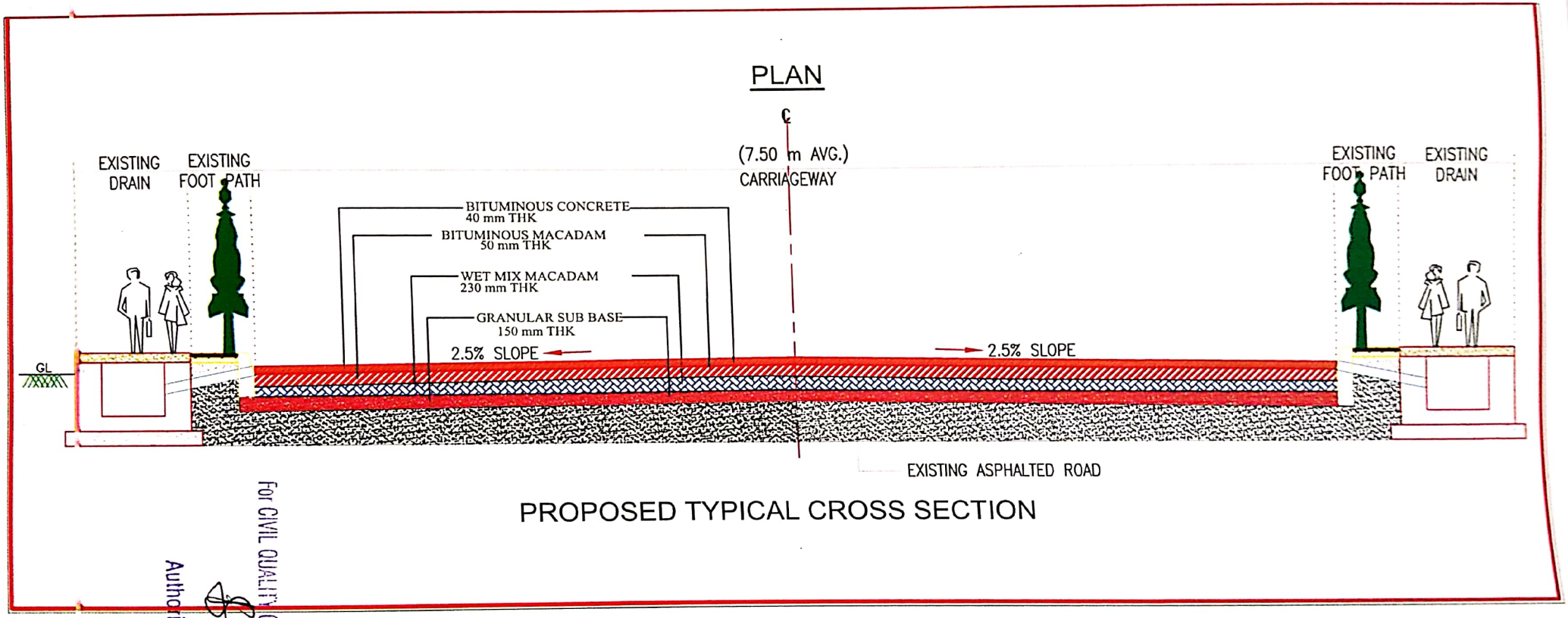

PROPOSED TYPICAL CROSS SECTION

For CIVIL QUALITY CONSULTANTS & ENGINEERS

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BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer - Road Infrastructure Yelahanka division

Rate Analysis for Removing and Resetting of Footpath Slab

Sl No.	Description	Unit	Qty	Rate	Amount
	Removing and Resetting of Footpath Slab				
	Consider 10.00 Sqm				
	Labour				
A	Mazdoor (From Vol, Labour rates, unskilled no. 1, Pg No. A-52)	Day	1	486.22	486.22
B	Mazdoor light (Blacksmith Assistant) (From Vol, Labour rates, unskilled no. 2, Pg No. A-52)	Day	3	486.22	1458.66
			Total		**1944.88**
		Add Over Head Charges 10%			194.49
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)			213.94
		Cost of Rs. 10.00 Sqm			**2353.30**
		Rate per Sqm			235.33
		Round Off			-0.33
		Net Rate Per Sqm			**235.00**

Note 1.The item rates are adoptd as per Schedule of Rate2020-21 Dated 18.03.2022

2.Rate ananlysis shall be revised acccording to periodical change in rate

Assistant Engineer
RI Yelahanka division

Asst Exec. Engineer
RI Yelahanka division

Executive Engineer
RI Yelahanka division

"Removing & Resetting of Footpath slabs ಬಗ್ಗೆ Rs. 235.00 /Sqm"
"ಸದರಿ ದರಗಳನ್ನು [illegible]
ಅನುಮೋದಿಸಿದೆ"

Superintending Engineer
Road Infrastructure
Bruhat Bengaluru Mahanagara Palike
Bengaluru - 560 002

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BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer - Road Infrastructure Yelahanka division

Rate Analysis for Removing and Resetting of Kerb Stones

Sl No.	Description	Unit	Qty	Rate	Amount
	Removing and Resetting of Kerb Stones				
	Consider 10.00 m				
	Labour				
A	Mazdoor (From Vol, Labour rates, unskilled no. 1, Pg No. A-52)	Day	1	486.22	486.22
B	Mazdoor light (Blacksmith Assistant) (From Vol, Labour rates, unskilled no. 2, Pg No. A-52)	Day	1	486.22	486.22
			Total		**972.44**
		Add Over Head Charges 10%			97.24
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)			106.97
		Cost of Rs. 10.00 m			**1176.65**
		Rate per m			117.67
		Round Off			0.33
		Net Rate Per m			**118.00**

Note 1.The item rates are adoptd as per Schedule of Rate2020-21 Dated 18.03.2022

2. Rate ananlysis shall be revised acccording to periodical change in rate

Assistant Engineer
RI Yelahanka division

Asst Exec. Engineer
RI Yelahanka division

Executive Engineer
RI Yelahanka division

" Removing & Resetting of Kerb Stones - Rs. 118.00 /mts
ಅಂದಾಜು ಪಟ್ಟಿಯಲ್ಲಿ ಲಭ್ಯವಿರುವಂತೆ
ಅನುಮೋದಿಸಿದೆ "

Superintending Engineer
Road Infrastructure
Bruhat Bengaluru Mahanagara Palike
Bengaluru - 560 002

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BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer - Road Infrastructure Yelahanka division

Rate Analysis for Removing Covering Slab of Drain and stacking

Sl No.	Description	Unit	Qty	Rate	Amount
	Removing Covering Slab of Drain and stacking				
	Consider 10.00 Sqm				
	Labour				
A	Mazdoor (From Vol, Labour rates, unskilled no. 1, Pg No. A-52)	Day	1	486.22	486.22
B	Mazdoor light (Blacksmith Assistant) (From Vol, Labour rates, unskilled no. 2, Pg No. A-52)	Day	1	486.22	486.22
			Total		972.44
		Add Over Head Charges 10%			97.24
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)			106.97
		Cost of Rs. 10.00 Sqm			1176.65
		Rate per Sqm			117.67
		Round Off			0.33
		Net Rate Per Sqm			118.00

Note 1.The item rates are adoptd as per Schedule of Rate2020-21 Dated 18.03.2022
2.Rate ananlysis shall be revised acccording to periodical change in rate

Assistant Engineer
RI Yelahanka division

Asst Exec. Engineer
RI Yelahanka division

Executive Engineer
RI Yelahanka division

"Removing Covering Slabs of Drain & Stacking" ಕಾಮಗಾರಿಯ Rate analysis ಅಂತೆ ಯು - 118.00/sqm ದರವನ್ನು ಅಂದಾಜು ಪಟ್ಟಿಯಲ್ಲಿ ಭರಿಸಿಕೊಳ್ಳಲು ಅನುಮೋದಿಸಿದೆ"

Superintending Engineer
Road Infrastructure
Bruhat Bengaluru Mahanagara Palike
Bengaluru - 560 002

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BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer - Road Infrastructure Yelahanka division

Rate Analysis for Milling the bituminous pavement surface upto a depth of 55 mm

Sl No.	Description	Unit	Qty	Rate	Amount
	Milling the bituminous pavement surface upto a depth of 55 mm using milling machine, to make a uniform surface without disturbing the base, cleaning the milled surface, including cost of all labour charges and hire charges of machineries etc complete., including stacking the milled material on the sides of road.				
	Consider 1500.00 Sqm				
	Machinary				
A	Milling Machine with 1 meter Drum Width per day of 8Hrs (Sl no 64, Page no A-46)	Hr	8	6851.00	54808.00
B	Tipper-14 m3 x 2 Nos (8*2=16 hrs) (Sl no 122, Page no A-48)	Hr	16	2019.00	32304.00
	Labour				
A	Literate labour (From Vol, Labour rates, Highly skilled no. 1, Pg No. A-49)	Day	1	526.22	526.22
B	Mazdoor (From Vol, Labour rates, unskilled no. 1, Pg No. A-52)	Day	5	486.22	2431.10
C	Mazdoor light (From Vol, Labour rates, unskilled no. 2, Pg No. A-52)	Day	3	486.22	1458.66
			Total		**91527.98**
		Add Over Head Charges 10%			9152.80
		Add Contractor's Profit 10% (10% of Total + Over Head Charges)			10068.08
		Cost of Rs. 1500.00 Sqm			**110748.86**
		Rate per 1Sqm			73.83
		Round Off			0.17
		Net Rate Per Sqm			**74.00**

Note 1.The item rates are adoptd as per Schedule of Rate2020-21 Dated 18.03.2022
2.Rate ananlysis shall be revised acccording to periodical change in rate

Assistant Engineer
RI Yelahanka division

Asst.Exec. Engineer
RI Yelahanka division

Executive Engineer
RI Yelahanka division

"Bituminous Pavement Surface upto a depth of 55 mm" ಅಂತಕ್ಕೆ ರೂ. Rs.74/-Sqm"
ಸದರ ದರಗಳನ್ನು ಅಂದಾಜು ಪಟ್ಟಿಯಲ್ಲಿ ಅಳವಡಿಸಿಕೊಳ್ಳಲು ಅನುಮೋದನೆ.

Superintending Engineer
Road Infrastructure
Bruhat Bengaluru Mahanagara Palike
Bengaluru - 560 002

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BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer - Road Infrastructure Yelahanka division

DATA RATE FOR 250mm PRECAST SLAB

Sl No	Description of Items		No	Length m	Width m	Depth m	Quantity	Rate	Amount
1	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (V-1,P.No.17, I.No.2.4.2of PW, P&IWTD S.R 2021-22)								
	Basic rate	6,256.00							
	10% AW	625.60							
	Total	**6,881.60**							
		Cum					3.38		
			15	1.50	0.60	0.25	3.38	6,881.60	**23,225.40**
2	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.NO 13.1 Page No 99, PWD SR 2021-22)								
	Basic rate/ Issue Rate	83,780.00							
	10% AW	8,378.00							
	Sub Total	**92,158.00**					0.375		
		Tonne	15.00		0.025		0.375	92,158.00	**34,559.25**
	Per Slab = 25 kgs								
3	Laying and fixing Precast slabs of drains and pointing in C.M (1:3)								
		Sqm					13.50		
			15	1.50	0.60		13.5	6.60	89.10
	Rate Analysis								
a.	R & R stone slab of drains			123.00					
b.	BS slab of drain and stacking			117.00					
	Arrived rate for fixing (a-b)			6.00					
	Add 10% AW			0.60					
	Total rate in Rs.			6.60					
4	Transportation and crane charges (2 hr a day)						2.00		
	Crane with grab 0.75 m3 capacity, Vol I, P A-44, Sl No. 20		Hr	2			2.00	797.00	1,594.00
							Total		59,467.75

Cost per Sqm = $\frac{\text{Total}}{15*1.5*0.6} = \frac{59,467.75}{13.50}$ 4405.02 Say 4400

Note 1.The item rates are adoptd as per Schedule of Rate2020-21 Dated 18.03.2022
2.Rate ananlysis shall be revised acccording to periodical change in rate

Assistant Engineer
RI Yelahanka division

Asst Exec. Engineer
RI Yelahanka division

Executive Engineer
RI Yelahanka division

Pre-Cast slab 250 mm [illegible] ರೂ. 4,400/sqm "[illegible]
[illegible]"

Superintending Engineer
Road Infrastructure
Bruhat Bangaluru Mahanagara Palike

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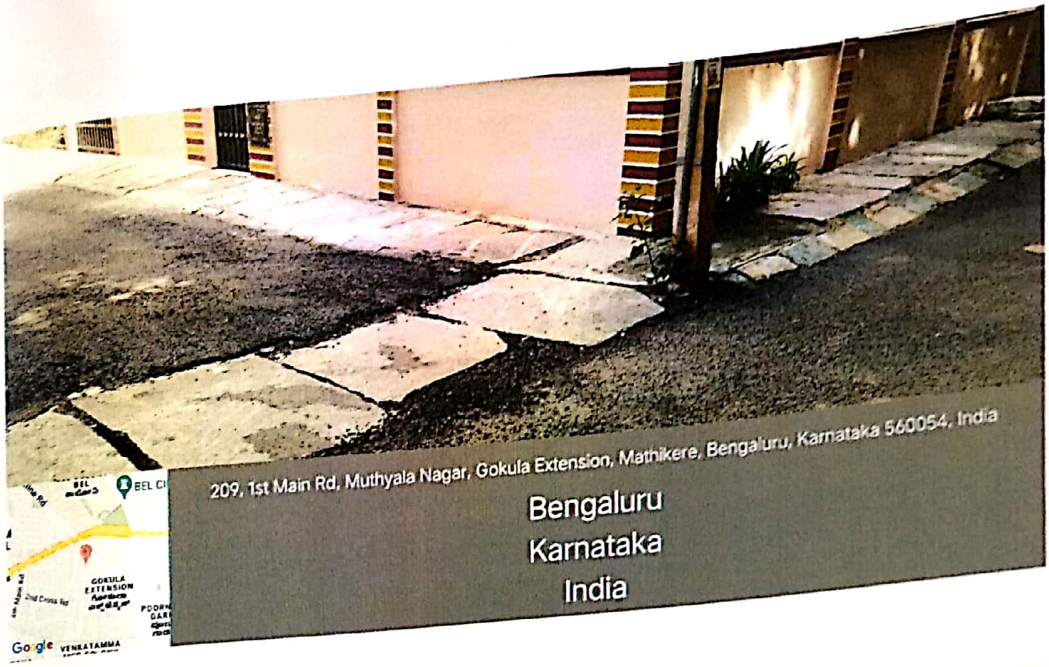

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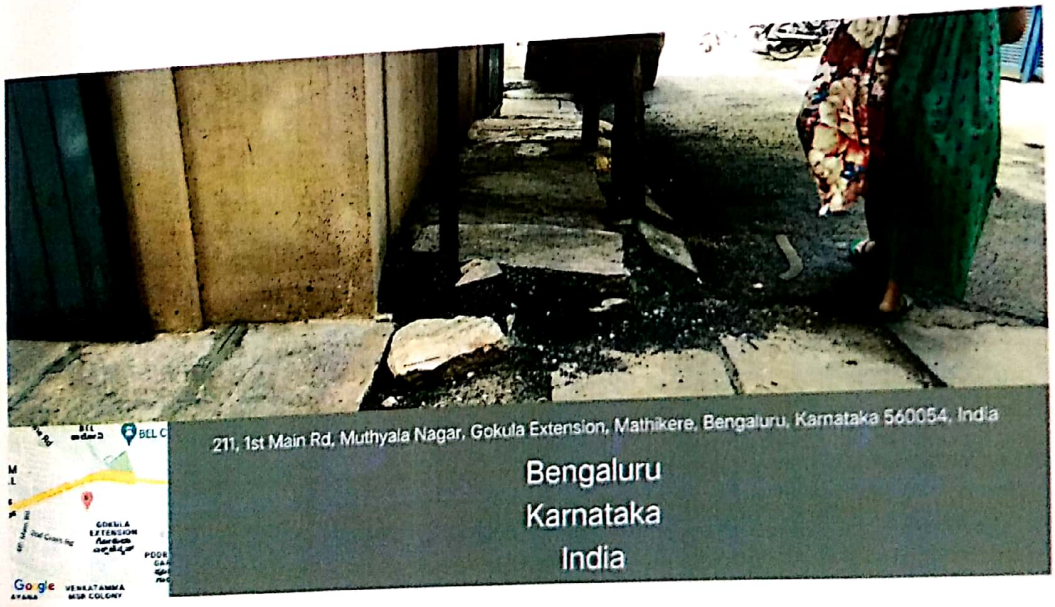

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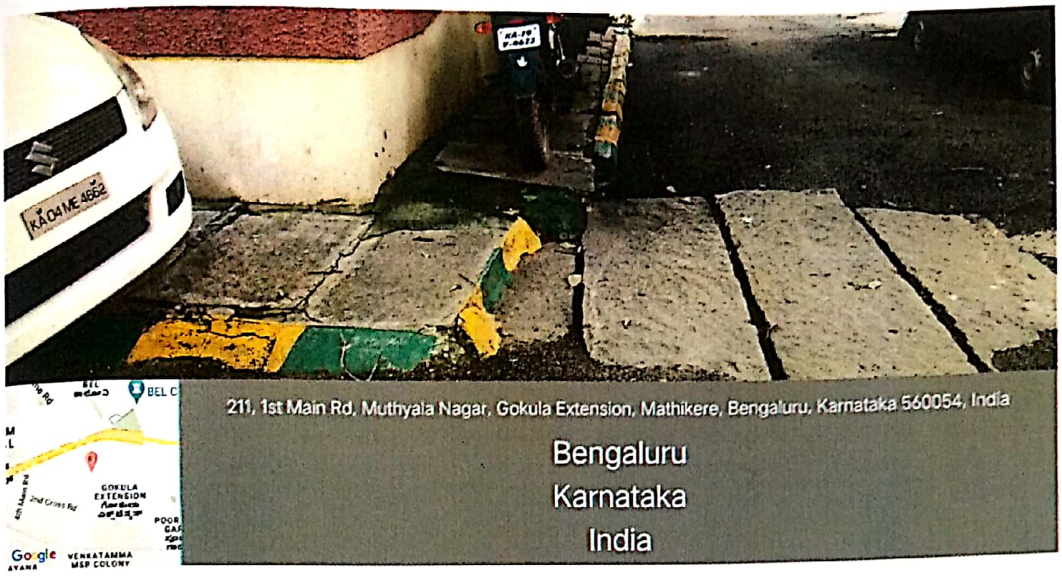

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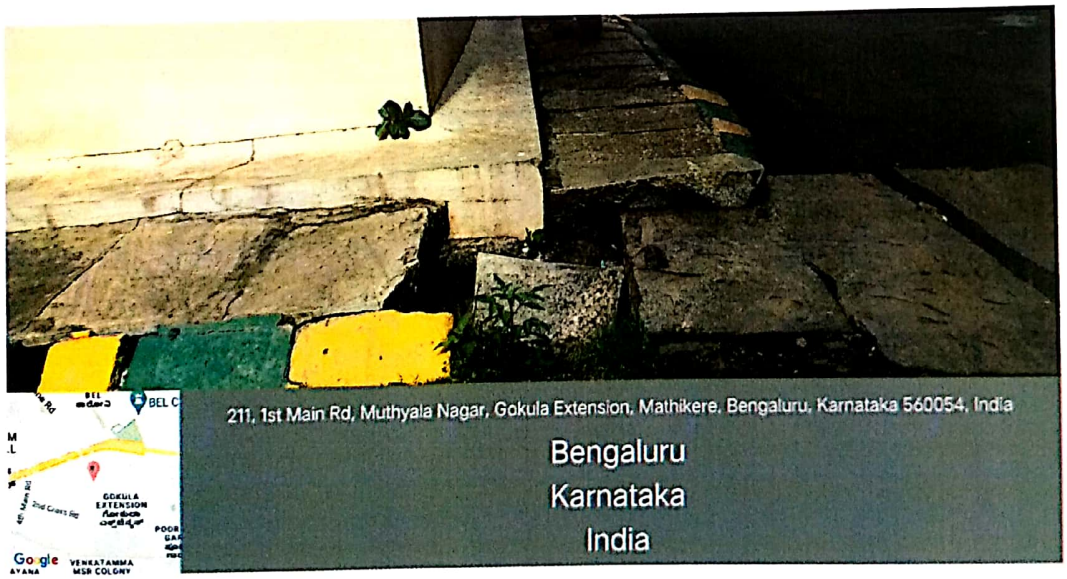

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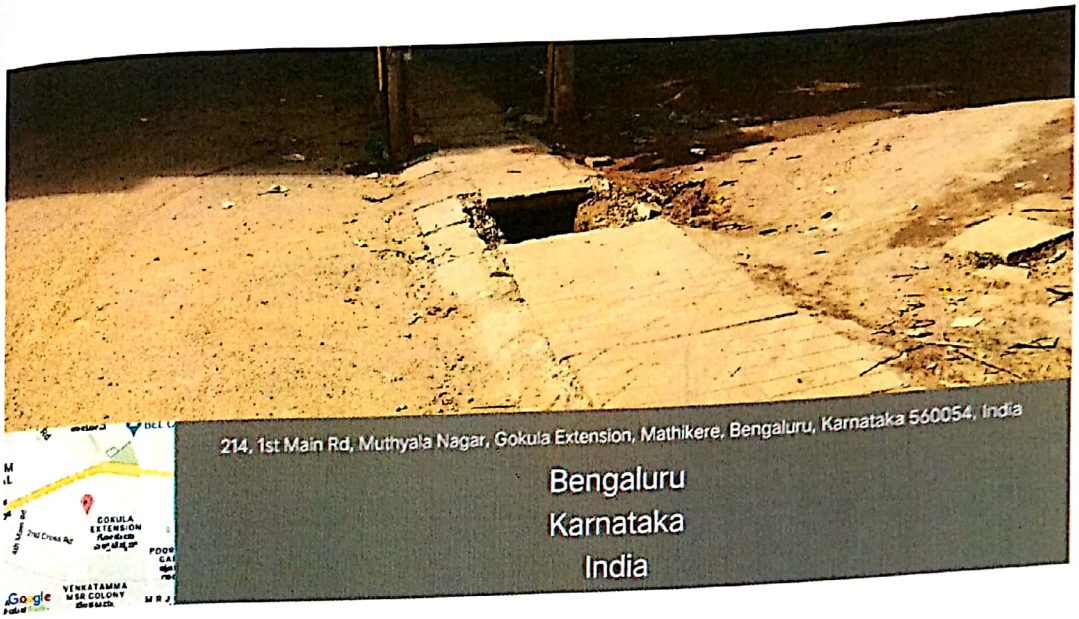

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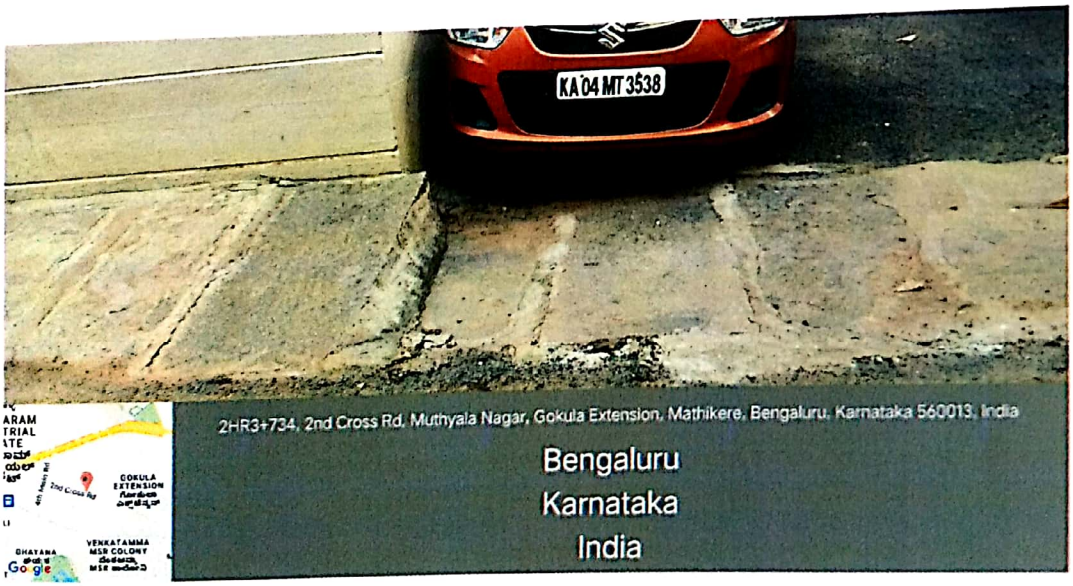

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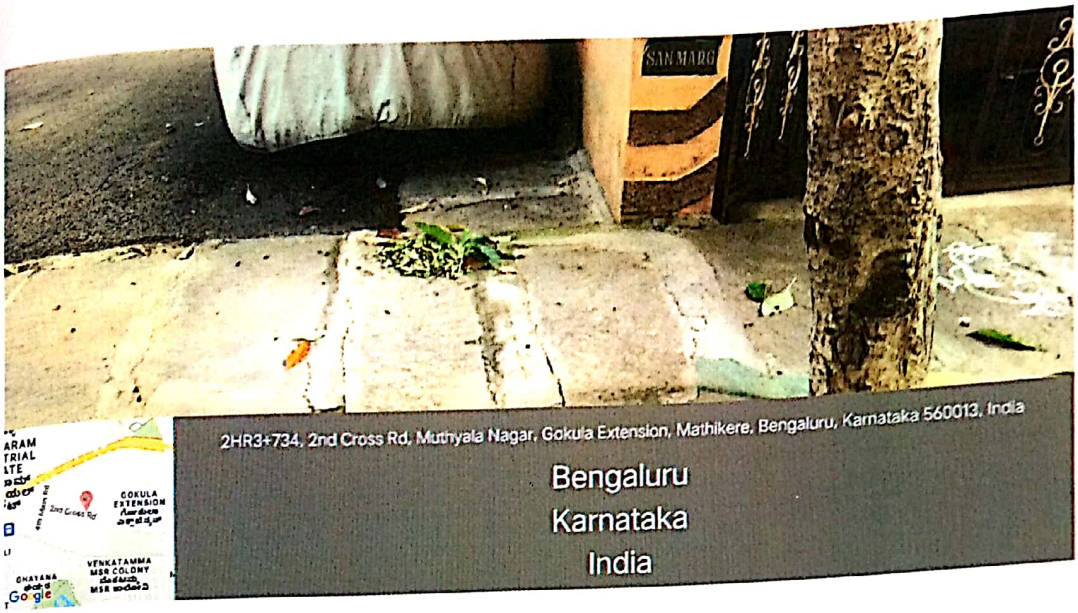

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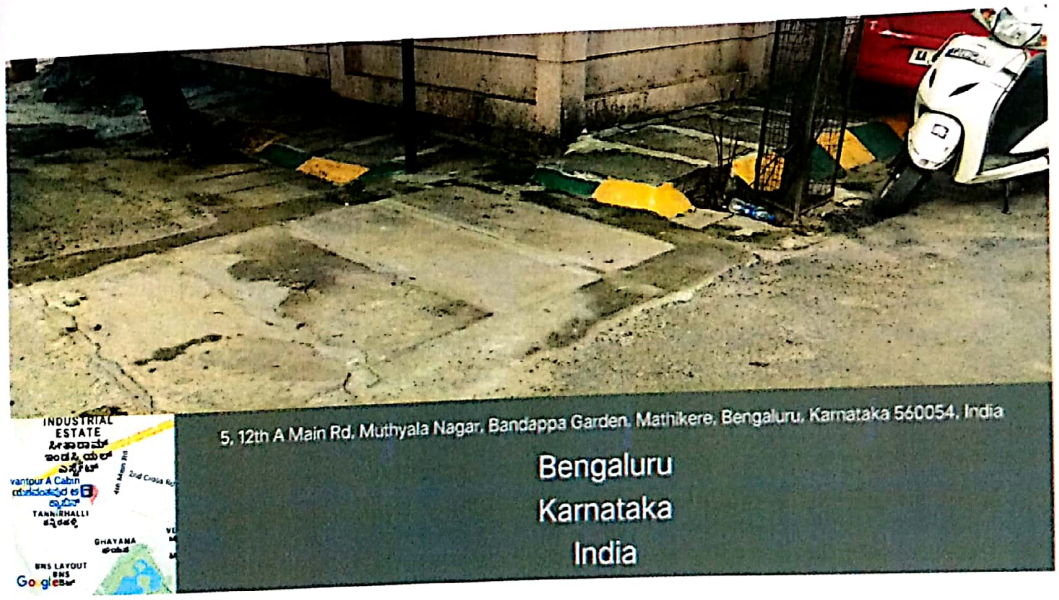

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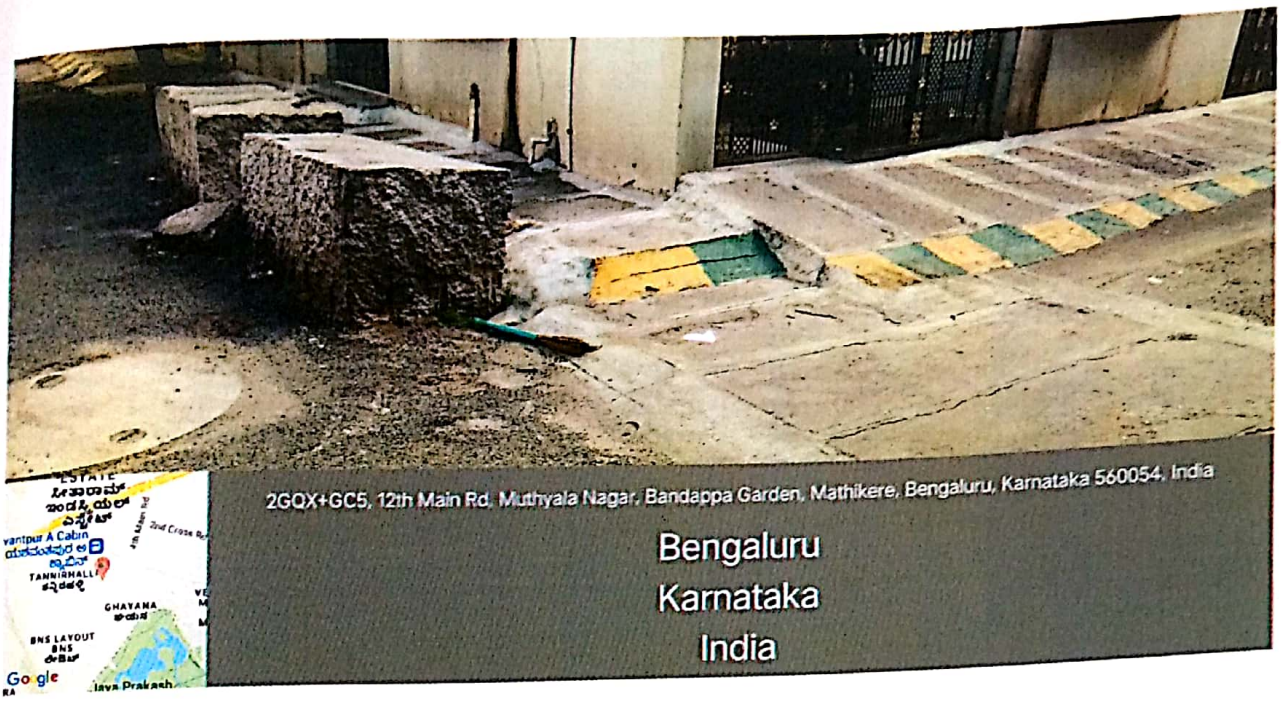

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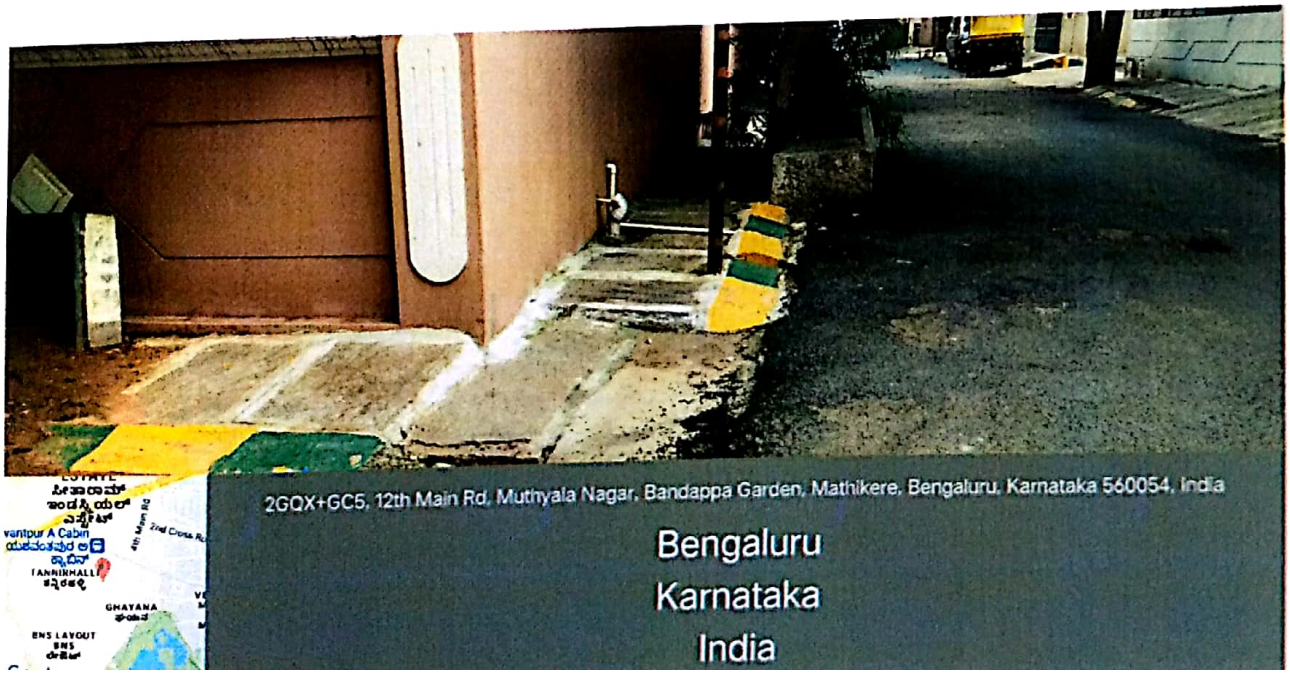

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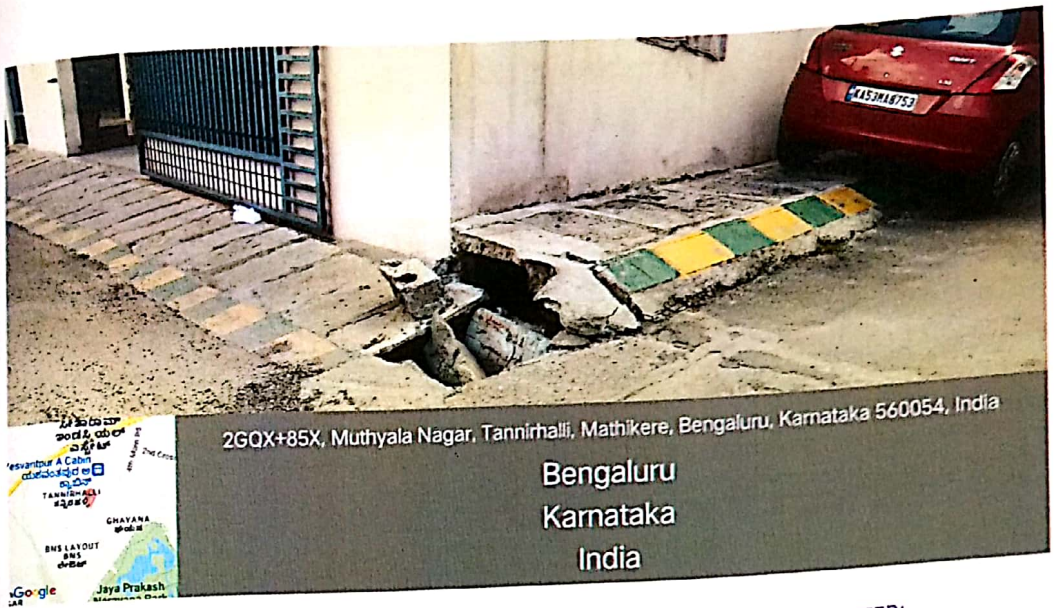

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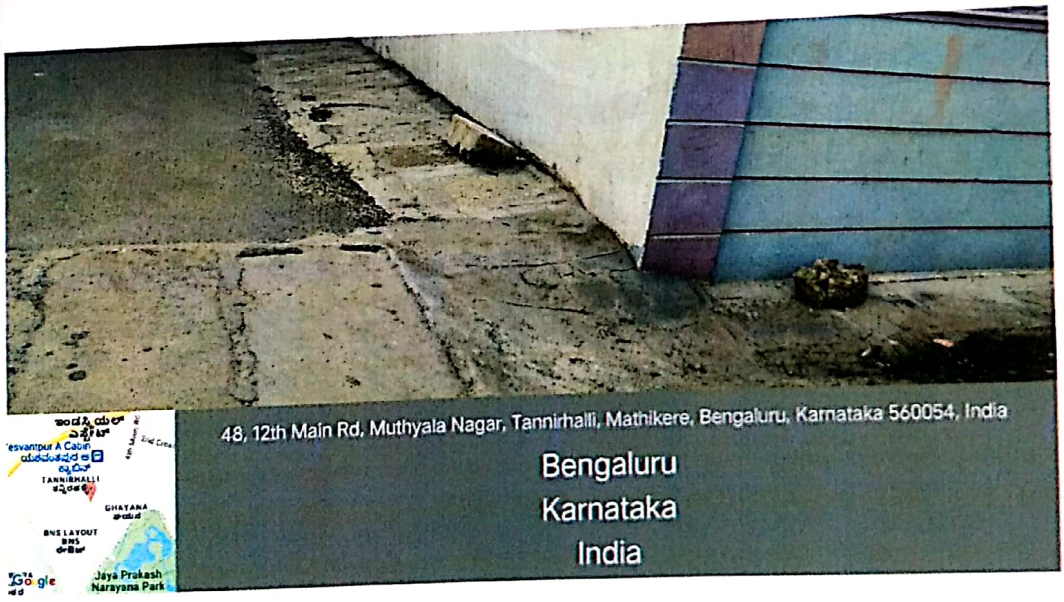

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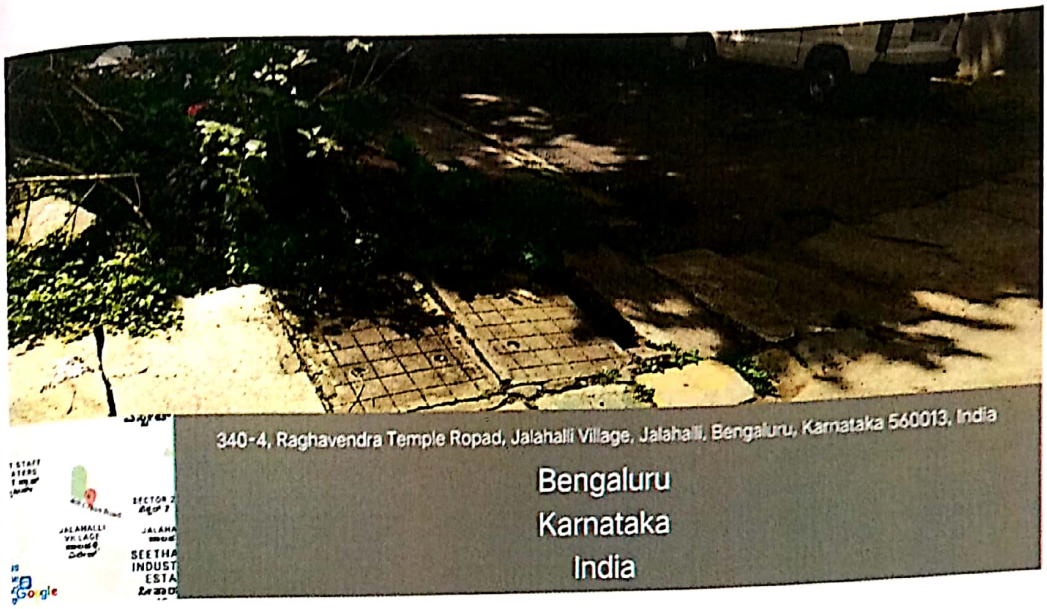

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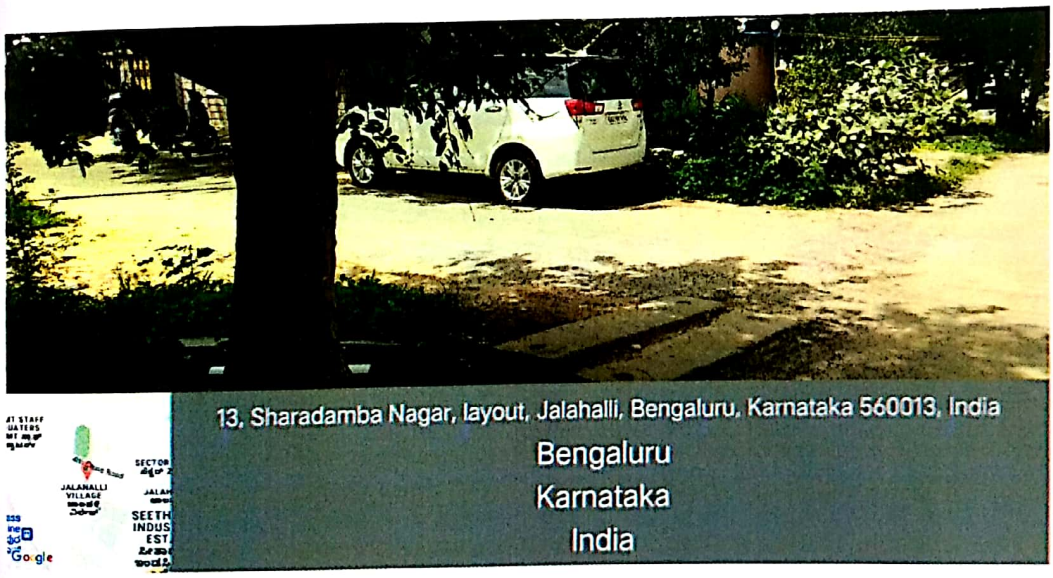

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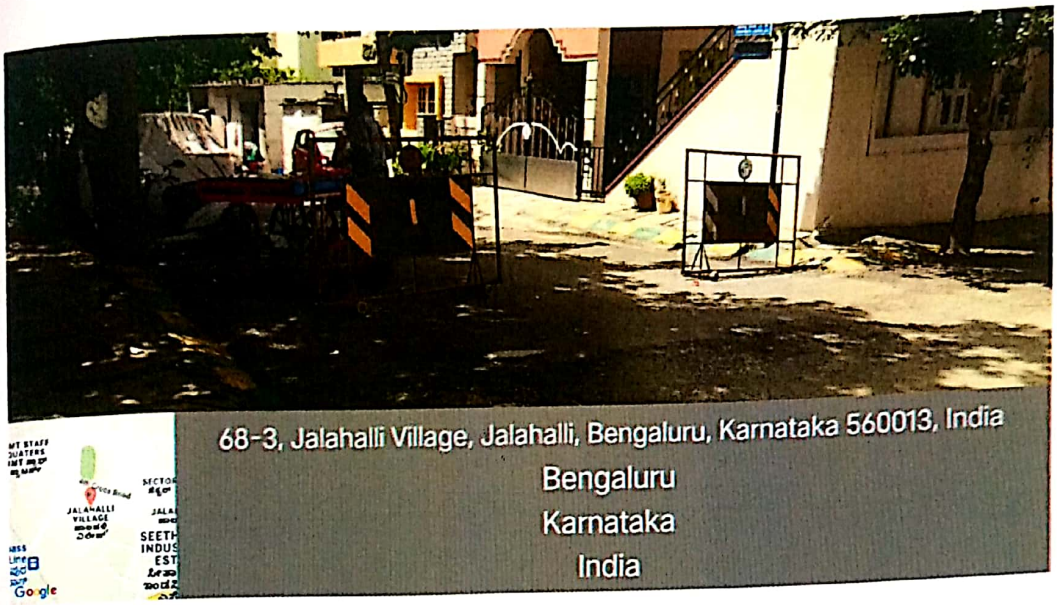

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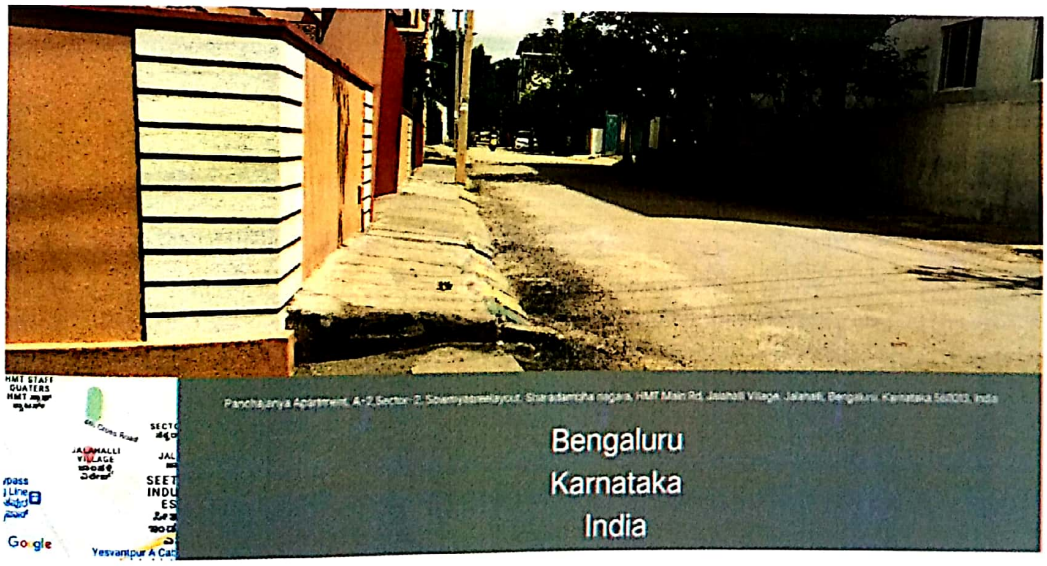

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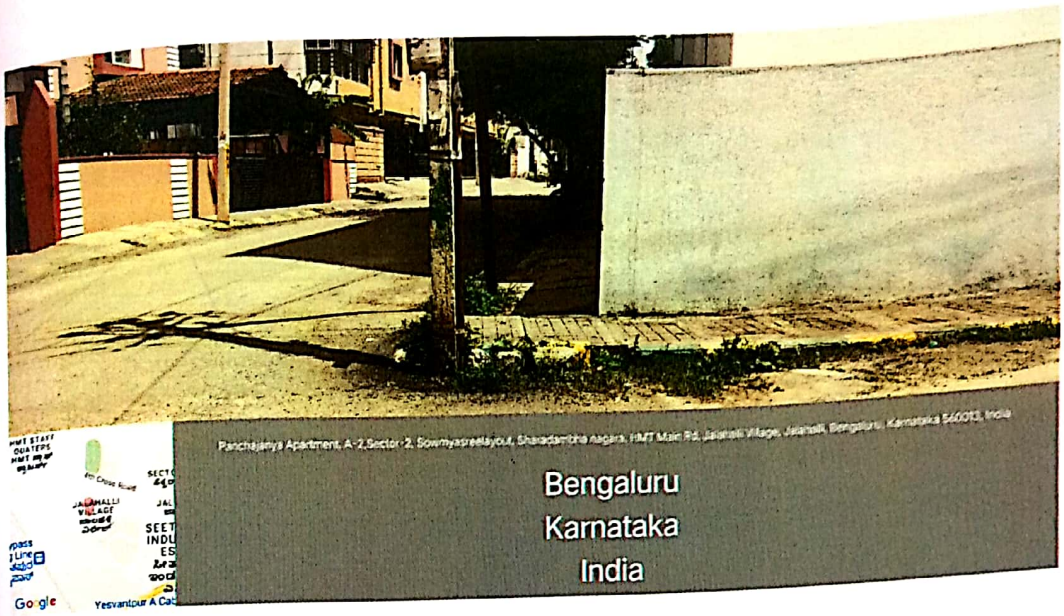

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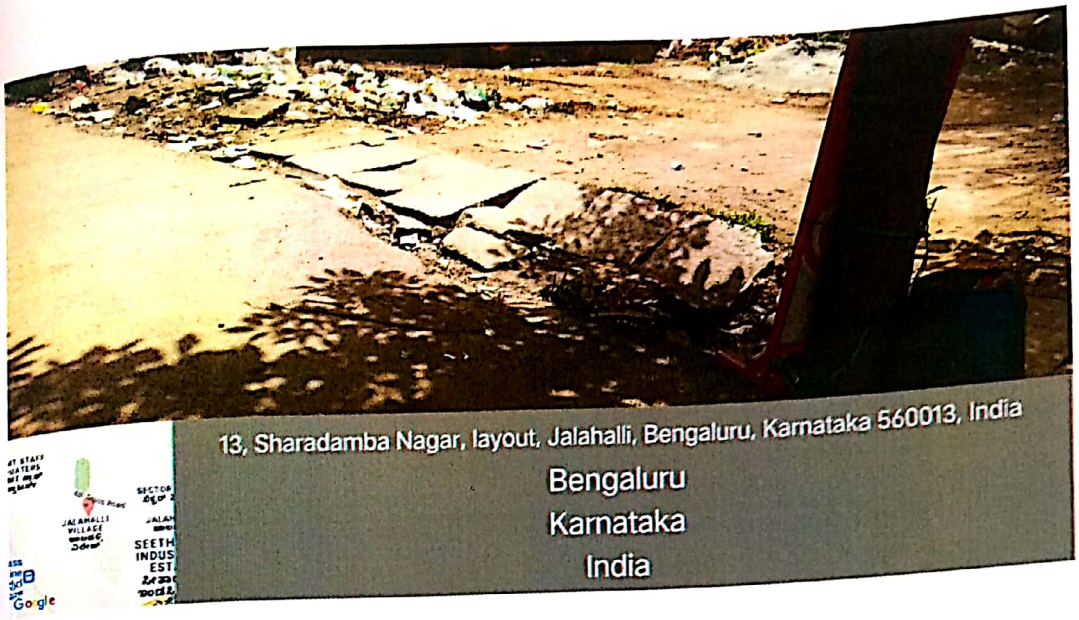

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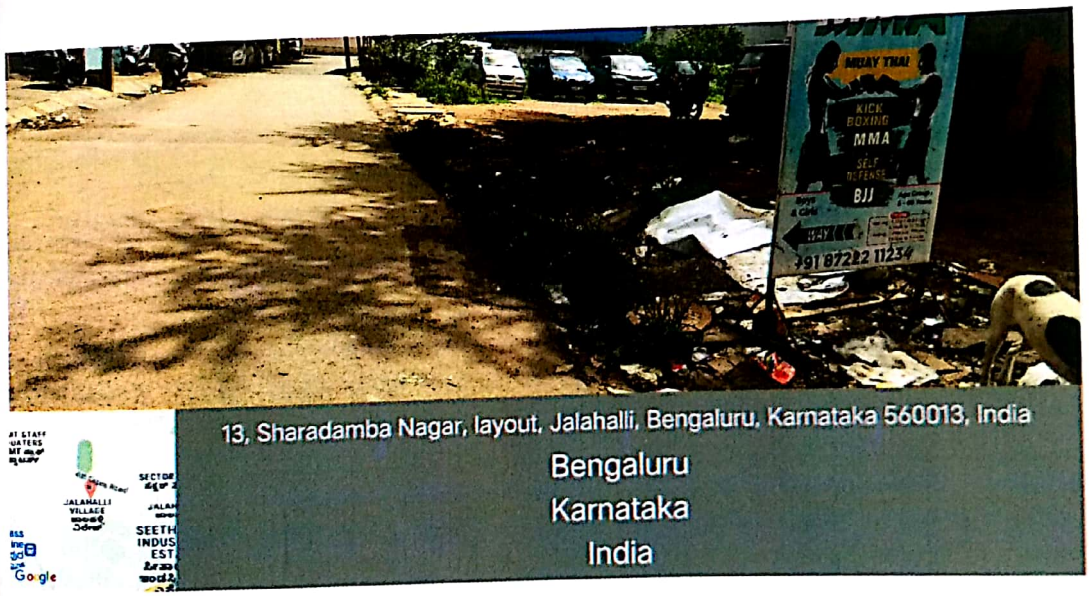

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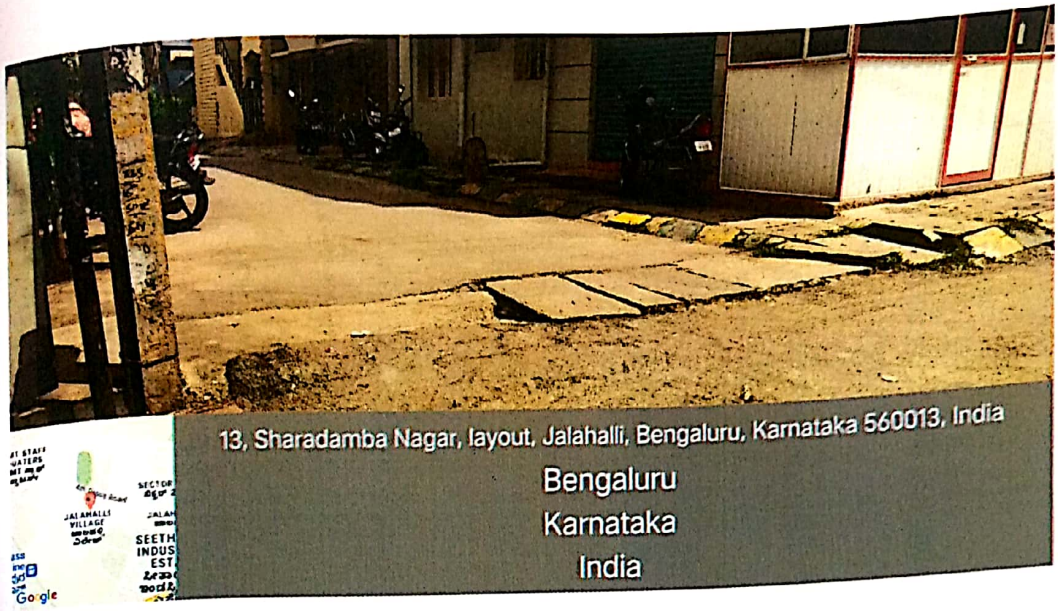

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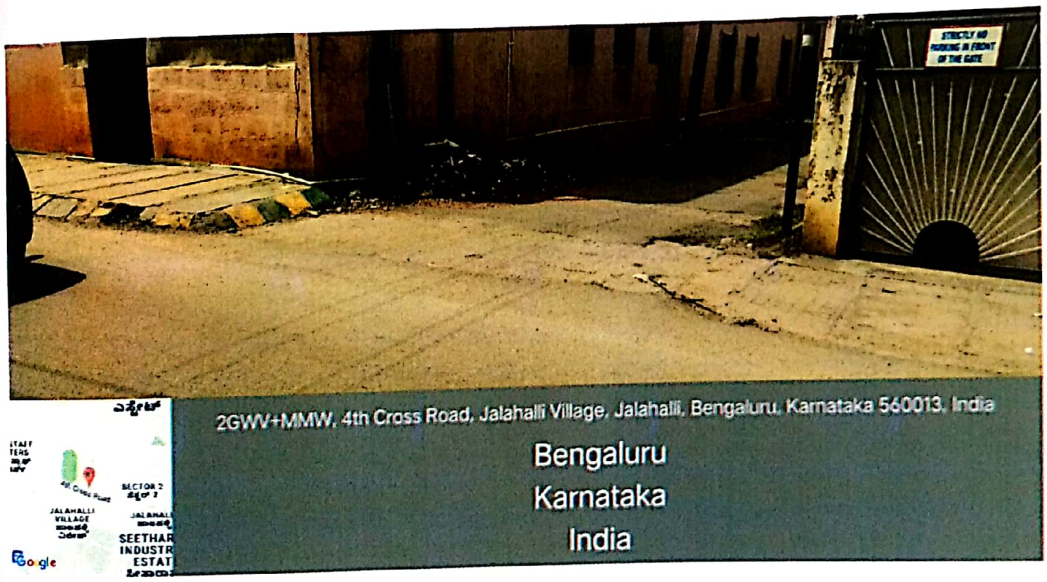

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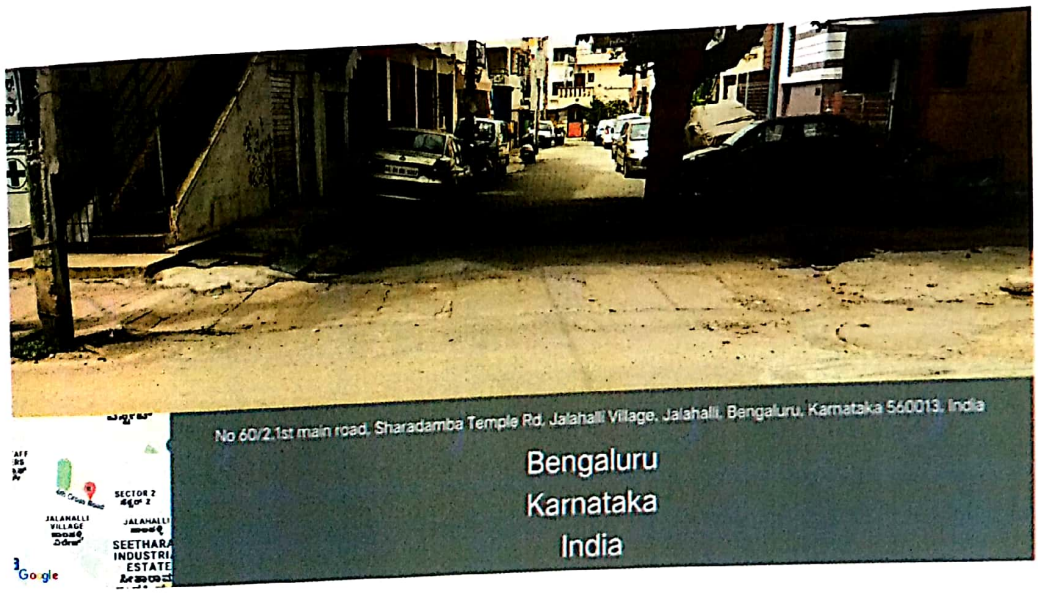

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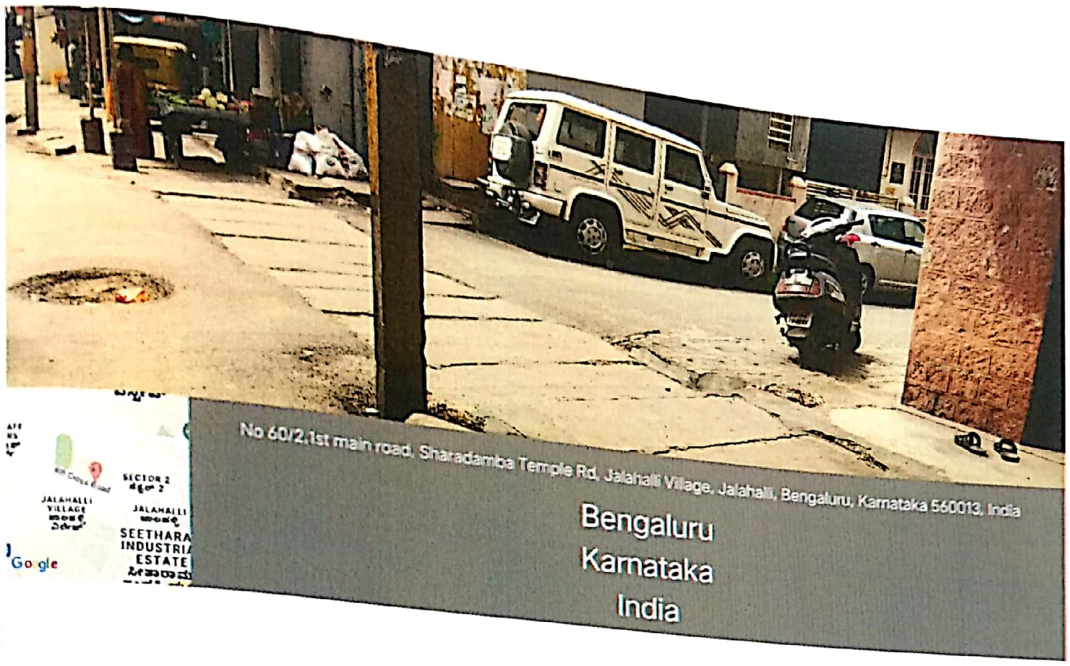

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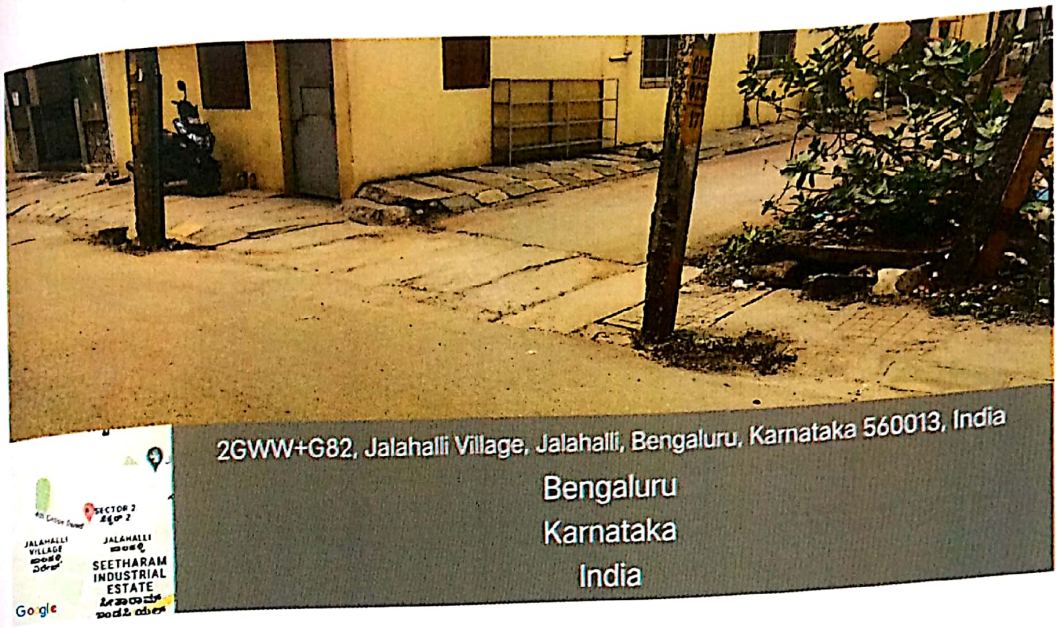

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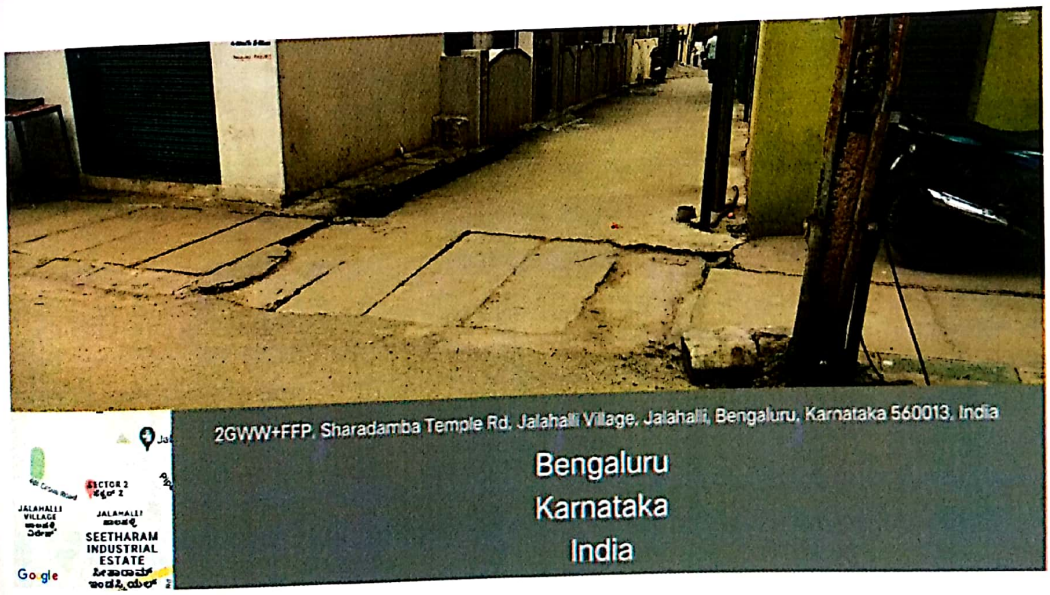

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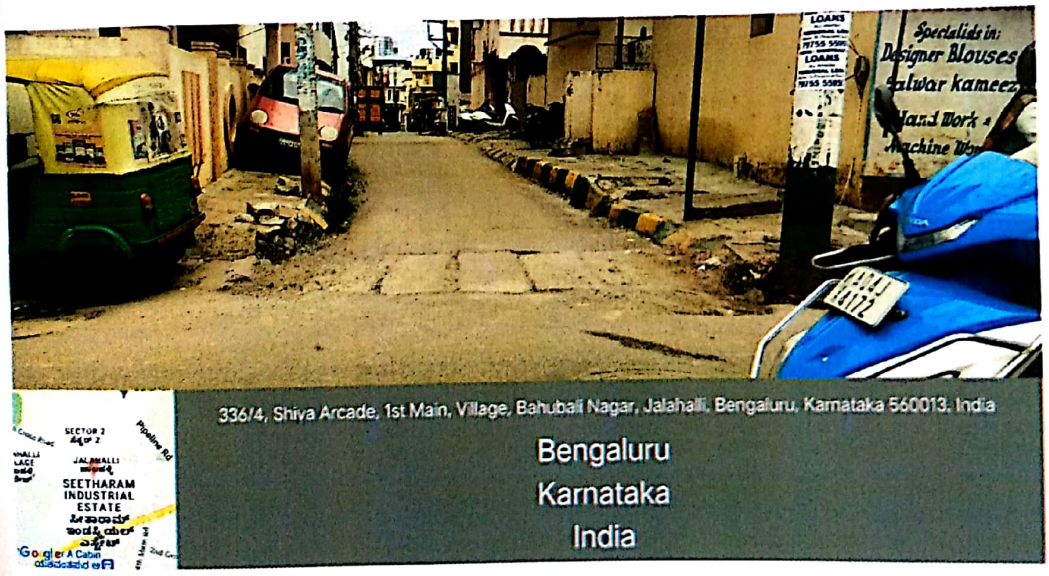

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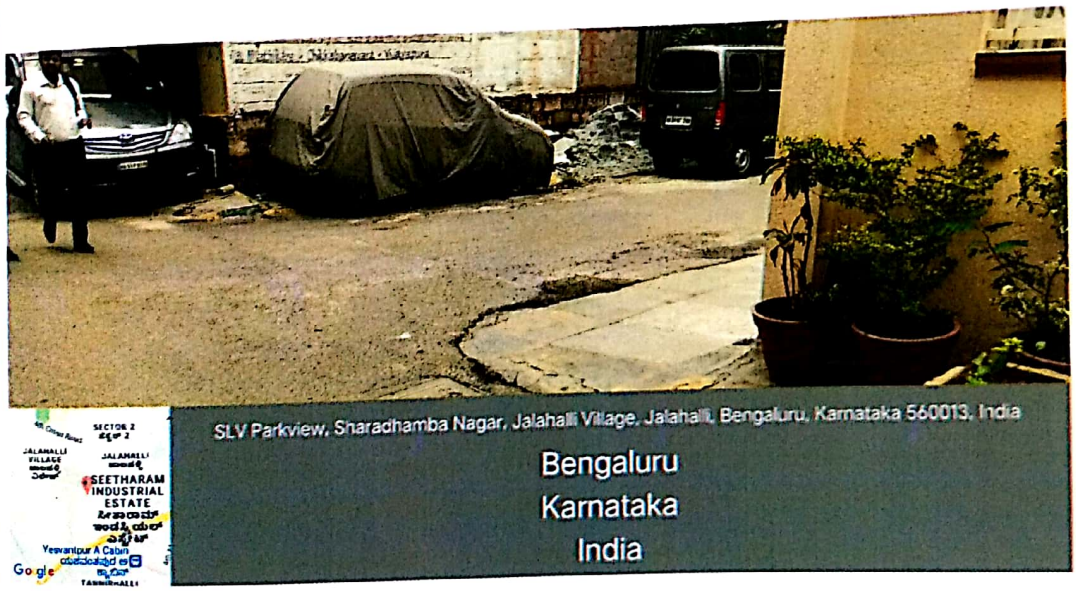

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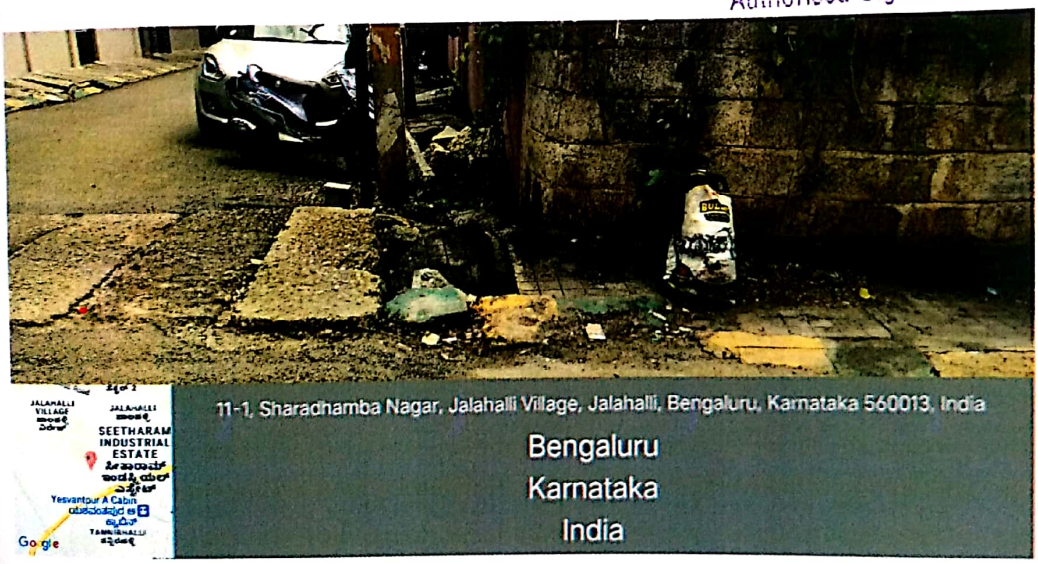

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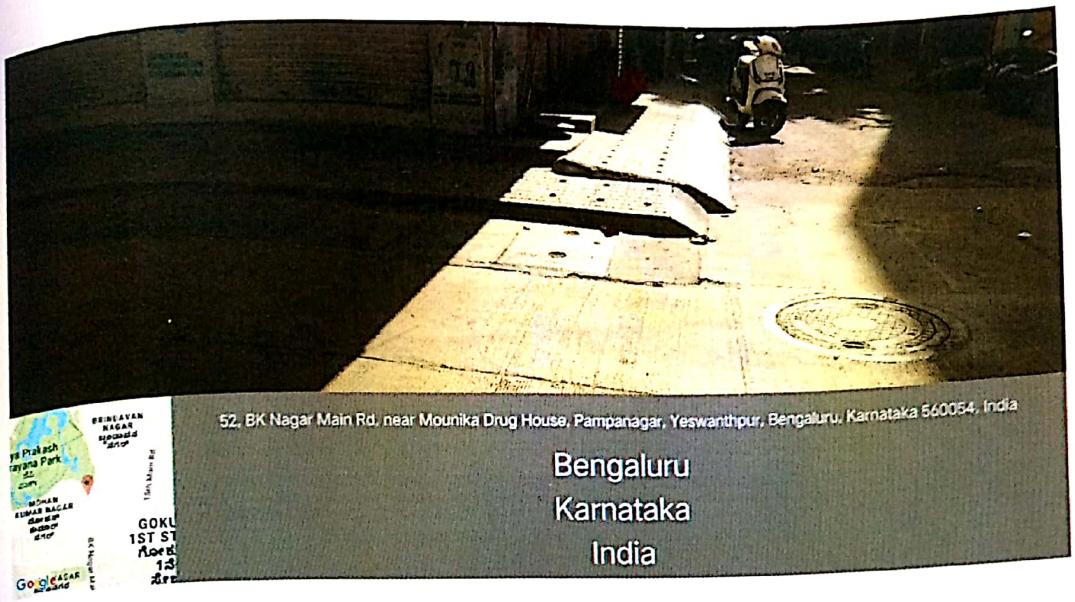

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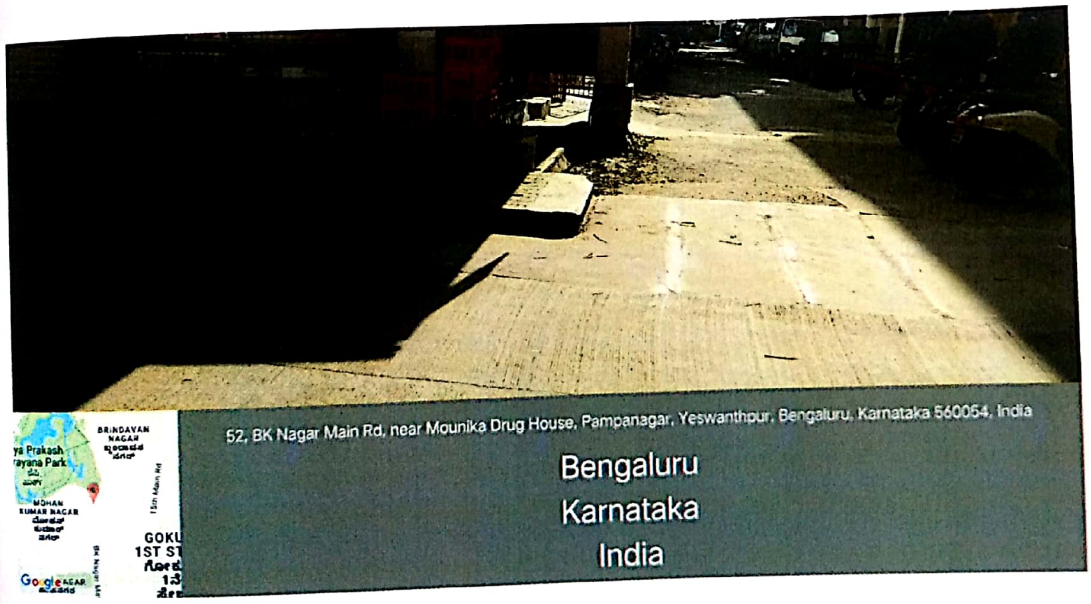

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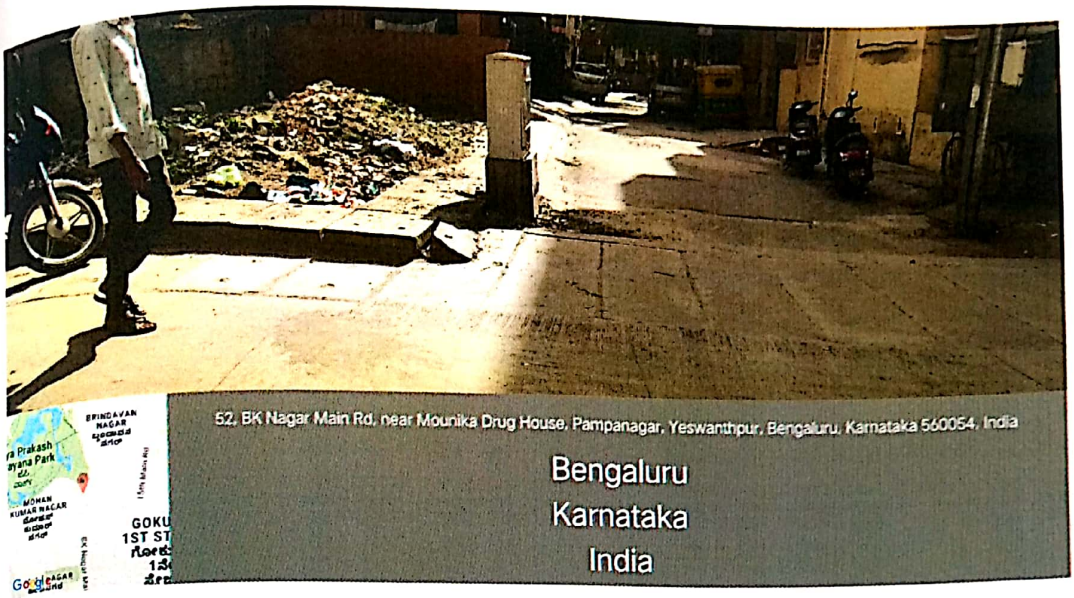

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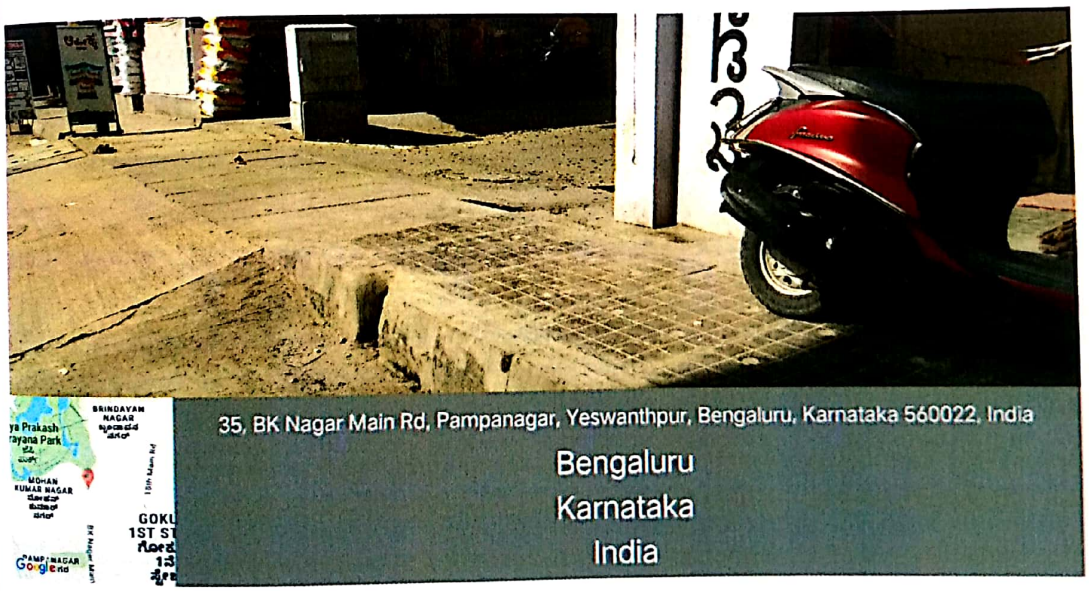

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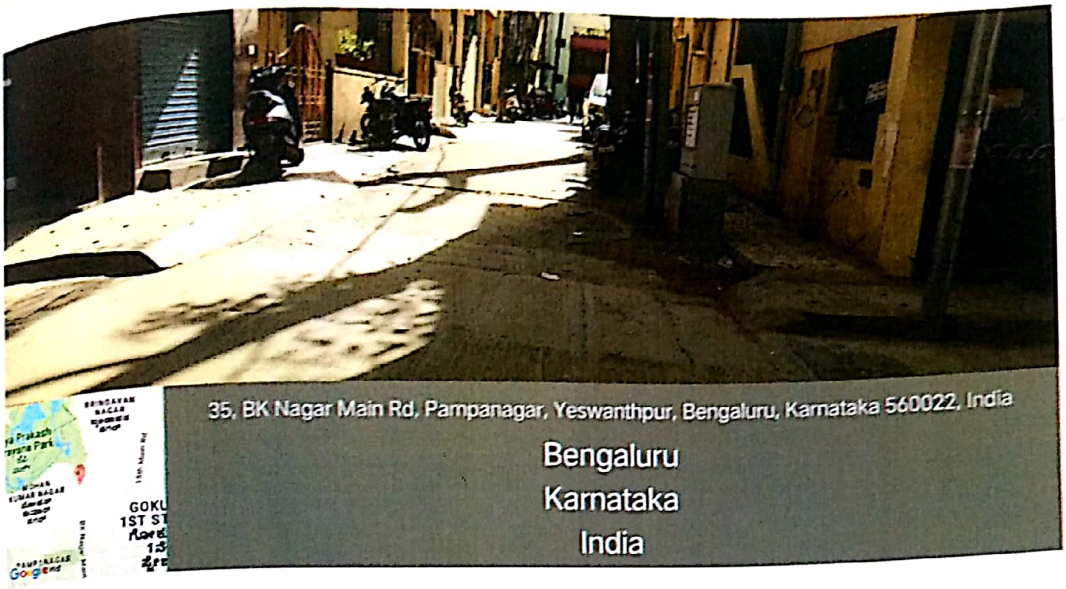

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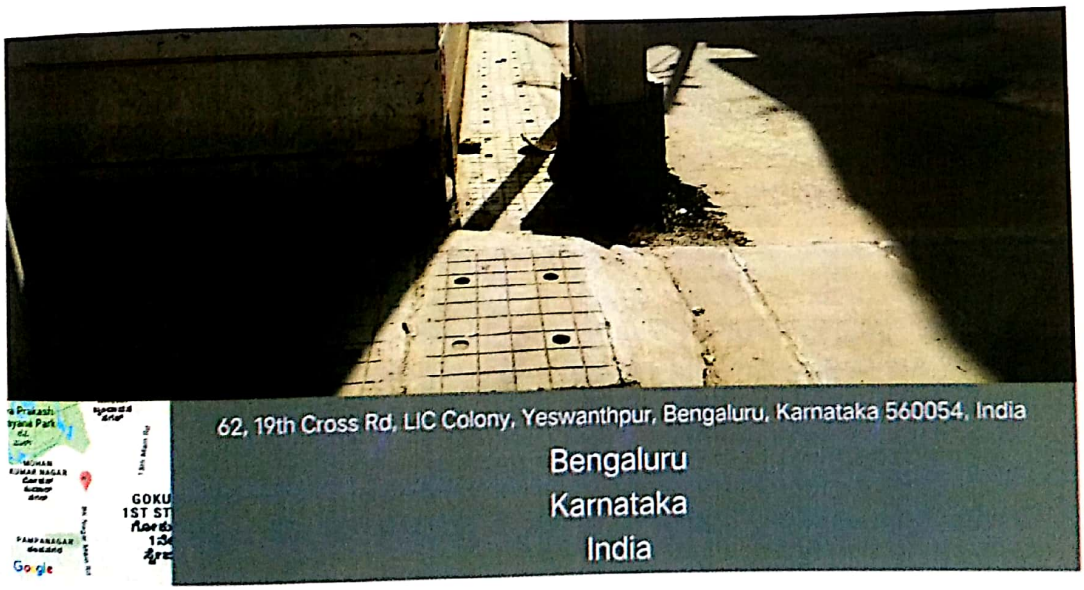

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Bengaluru
Karnataka
India

For CIVIL QUALITY CONSULTANTS & ENGINEERS

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Karnataka
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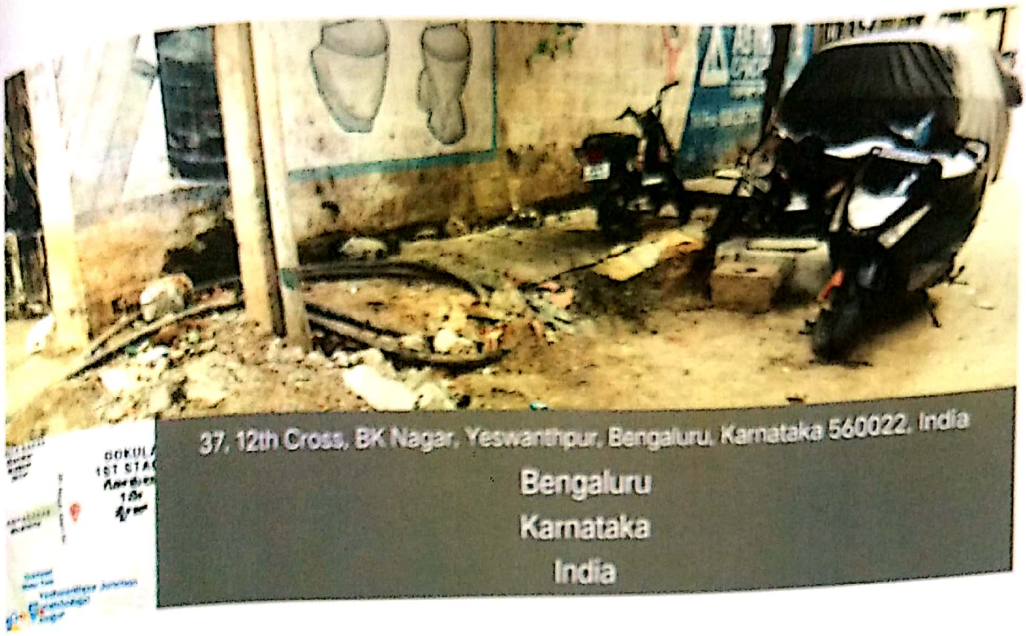

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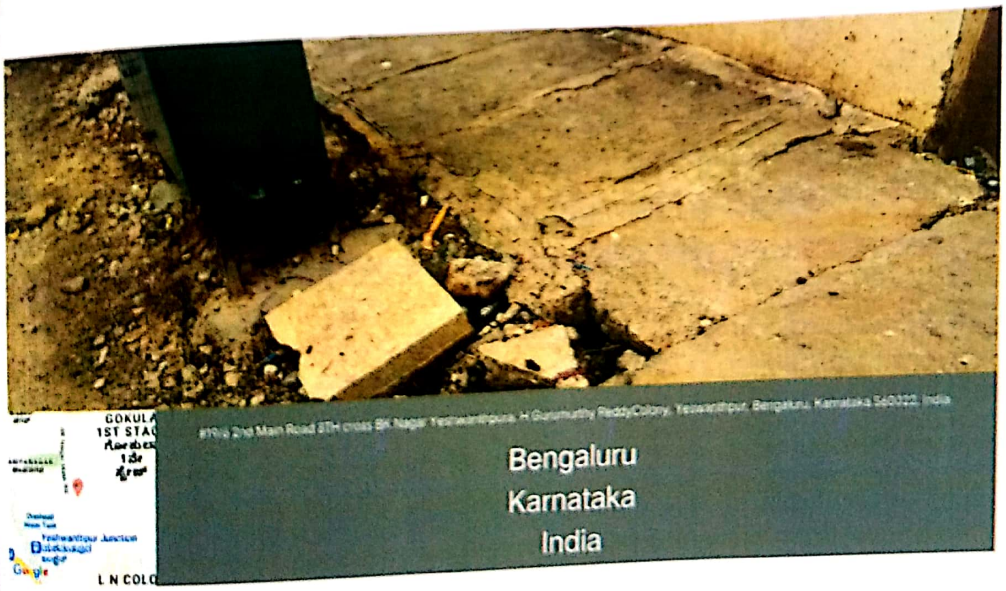

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BRUHAT BENGALURU MAHANAGARA PALIKE

Name of Work : Comprehensive Development of Roads & Drains in JP Park, Ganthapura, Jalahalli and Surrounding areas in W No.16, 17 and 37 under PACKAGE-2022-23 RRN-DIV-(15).

Sailent Features

Description of Items	Unit	Length in Meter	Qty	Amount
moving & Refixing stone slabs	Cum	35370.00	23,636.94	5011031.28
th work excavation	Cum	35370.00	17,634.54	6411213.36
in cement concrete Mix 1:3:6 (M10) Using 40 mm	Cum	35370.00	162.70	1029448.09
id Concrete blocks of size 400x200x200mm	Sqm	6805.35	13,610.70	17996072.83
oviding Flush/ Ruled pointing:	Sqm	6805.35	10,787.18	2373180.48
sition plain cement concrete Mix 1:3:6 (M10) Using 20 mm	Sqm	6805.35	945.78	6165135.43
oviding B S Slabs	Sqm	15436.07	13,892.46	11627989.02
oviding one line dressing	Sqm	15436.07	13,892.46	3361975.32
oviding Machine Cutting	Sqm	15436.07	34,731.00	13545090.00
oviding 20 mm cement plaster of	Sqm	1179.00	2,169.36	732592.87
oviding & laying precast drain corner cover slab of 200 mm	No's	379.00	379.00	3976468.00
oviding & laying precast drain corner cover slab of 200 mm	No's	800.00	800.00	6440800.00
oviding & laying precast drain slab of 230 mm thickness in	Sqm	74.00	36.95	201044.21
moving and resetting of kerb stones.Page No. 270	No's	6805.35	14,696.76	1734217.68
oviding and fixing pre cast solid cement concrete kerb stones	No's	8947.64	19,883.64	10081007.73
inting two coats after filling the surface with synthetic amel paint	Sqm	8947.64	7,093.32	663225.42

otal No Of Coner Slab =1179 M

otal Length of Desilting of Drain=35370 M

o's Of Culvert=74 No's

Executive Engineer
RR nagara Division
BBMP

For CIVIL QUALITY CONSULTANTS & ENGINEERS

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BRUHATH BANGALORE MAHANAGARA PALIKE
EXECUTIVE ENGINEER, RR NAGAR DIVISION

Name of Works : Improvements of Drains & Culverts in Yashwanthapura And Surrounding Area in Ward No 37, Yashwanthapura

DETAILED ESTIMATE

Estimated Cost= 3,00,00,000.00

Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Removing & Refixing stone slabs of drains and pointing in C.M (1:3) Data Rate								
	Cum							
For corner Slab								
B K Nagar		2	195.00	1.20		468.00		
1st C Main Road		2	74.00	0.90		133.20		
3rd B Main Road		2	99.00	0.90		178.20		
12th A Cross Road		2	459.00	0.90		826.20		
2nd main Road		2	251.00	0.90		451.80		
12th Cross Road		2	72.00	0.90		129.60		
1st A Cross Road		2	71.00	0.90		127.80		
2nd Cross Road		2	80.00	0.90		144.00		
1st D Cross Road		2	129.00	0.90		232.20		
19th Cross road		2	109.00	0.90		196.20		
T.S Govindaraj Road		2	94.00	0.90		169.20		
Cr Rd		2	43.00	0.90		77.40		
11th Cross		2	120.00	1.20		288.00		
Cr Rd		2	93.00	0.90		167.40		
1st A Cross Road		2	94.00	0.90		169.20		
1st Cross Road		2	95.00	0.90		171.00		
2nd Cross Road		2	95.00	0.90		171.00		
3rd Cross Road		2	96.00	0.90		172.80		
4th Cross Road		2	56.00	0.90		100.80		
1st Cross Road		2	350.00	1.20		840.00		
Cr Rd		2	405.00	1.20		972.00		
Cr rd		1	90.00	0.90		81.00		
2nd Cross Road		2	177.00	1.20		424.80		
13th main road		2	168.00	1.20		403.20		
12th main road								
LN COLONY								
2nd B main		2	175.00	0.90		315.00		
1st cross road		2	210.00	0.90		378.00		
1st D main		1	120.00	0.90		108.00		
1st D main		2	95.00	0.90		171.00		
1st D main		2	98.00	0.90		176.40		
cross road 2		2	350.00	1.20		840.00		
2nd Cross Road		1	90.00	1.20		108.00		
Old Panchayath Road		2	60.00	1.20		144.00		
Parallel Road		2	338.00	1.20		811.20		
cross road 2		2	224.00	1.20		537.60		
Missing And Broken Slab 35 %						-3739.47		
					Total Quantity	6944.73	212.00	1472282.76

Data Rate	
Basic Rate	212.00
Total Amount	212.00

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.In all kinds of soils Depth upto 1.5 m.Item No.1.4.1,Page No.A(5), Vol I CSR 21-22								
	Cum							
For Corner Slab		245	15.00	0.60	0.62	1367.10		
Ward No 37								
For Disilting								
B K Nagar		2	195.00	0.60	0.60	140.40		
1st C Main Road		2	74.00	0.60	0.60	53.28		
3rd B Main Road		2	99.00	0.60	0.50	59.40		
12th A Cross Road		2	459.00	0.60	0.60	330.48		
2nd main Road		2	251.00	0.60	0.60	180.72		
12th Cross Road		2	72.00	0.60	0.60	51.84		
1st A Cross Road		2	71.00	0.60	0.60	51.12		
2nd Cross Road		2	80.00	0.60	0.60	57.60		
1st D Cross Road		2	129.00	0.60	0.60	92.88		
19th Cross road		2	109.00	0.60	0.60	78.48		
T S Govindaraj Road		2	94.00	0.60	0.50	56.40		
Cr Rd		2	43.00	0.60	0.50	25.80		
11th Cross		2	120.00	0.60	0.50	72.00		
Cr Rd		2	93.00	0.60	0.50	55.80		
1st A Cross Road		2	94.00	0.60	0.50	56.40		
1st Cross Road		2	95.00	0.60	0.50	57.00		
2nd Cross Road		2	95.00	0.60	0.50	57.00		
3rd Cross Road		2	96.00	0.60	0.50	57.60		
4th Cross Road		2	56.00	0.60	0.50	33.60		
1st Cross Road		2	350.00	0.60	0.50	210.00		
Cr Rd		2	405.00	0.60	0.50	243.00		
Cr rd		1	90.00	0.60	0.50	27.00		
2nd Cross Road		2	177.00	0.60	0.50	106.20		
13th main road		2	168.00	0.60	0.50	100.80		
12th main road								
LN COLONY		2	175.00	0.60	0.50	105.00		
2nd B main		2	210.00	0.60	0.50	126.00		
1st cross road		1	120.00	0.60	0.50	36.00		
1st D main		2	95.00	0.60	0.50	57.00		
1st D main		2	98.00	0.60	0.50	58.80		
1st D main		2	350.00	0.60	0.50	210.00		
cross road 2		2	90.00	0.60	0.50	54.00		
2nd Cross Road		2	60.00	0.60	0.50	36.00		
Old Panchayath Road		2	338.00	0.60	0.50	202.80		
Parallel Road		2	224.00	0.60	0.50	134.40		
cross road 2								
					Total Quantity	4641.90	363.56	1687609.16

Rate Analysis	
Basic Rate	186.00
Loading & unLoading	118.00
Add for lead for earth (1.28 Tonne / Cum)	40.96
Area Weightage @10%	18.60
Total Amount	363.56

Providing and laying in position **plain cement concrete Mix 1:3:6 (M10)** Using 40 mm nominal size graded crushed coarse aggregates for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) (KWPD 2021-22, V-I, Item No.2.1.3, Page No.15)								

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
	Cum							
For Corner Slab								
Ward No.37		490	2.30	0.20	0.15	33.81		
					Total Quantity	33.81	6327.20	213922.63
Rate Analysis								
Basic Rate	5752.00							
Area Weightage @10%	575.20							
Total Amount	6327.20							
Providing and constructing load bearing wall with Solid Concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications.I.No 6.32 P.No 17 Volume 2 SR 2021-22								
	Sqm							
For Corner Slab								
Ward No 37		490	2.30		0.40	450.80		
For Solid Block								
B K Nagar		4	126.75		0.20	101.40		
1st C Main Road		4	48.10		0.20	38.48		
3rd B Main Road		4	64.35		0.20	51.48		
12th A Cross Road		4	298.35		0.40	477.36		
2nd main Road		4	163.15		0.40	261.04		
12th Cross Road		4	46.80		0.20	37.44		
1st A Cross Road		4	46.15		0.20	36.92		
2nd Cross Road		4	52.00		0.20	41.60		
1st D Cross Road		4	83.85		0.20	67.08		
19th Cross road		4	70.85		0.20	56.68		
T.S Govindaraj Road		4	61.10		0.20	48.88		
Cr Rd		4	27.95		0.20	22.36		
11th Cross		4	78.00		0.20	62.40		
Cr Rd		4	60.45		0.20	48.36		
1st A Cross Road		4	61.10		0.20	48.88		
1st Cross Road		4	61.75		0.20	49.40		
2nd Cross Road		4	61.75		0.20	49.40		
3rd Cross Road		4	62.40		0.20	49.92		
4th Cross Road		4	36.40		0.20	29.12		
1st Cross Road		4	227.50		0.20	182.00		
Cr Rd		4	263.25		0.20	210.60		
Cr rd		2	58.50		0.20	23.40		
2nd Cross Road		4	115.05		0.20	92.04		
13th main road		4	109.20		0.20	87.36		
12th main road								
LN COLONY		4	113.75		0.20	91.00		
2nd B main		4	136.50		0.40	218.40		
1st cross road		2	78.00		0.20	31.20		
1st D main		4	61.75		0.20	49.40		
1st D main		4	63.70		0.20	50.96		
1st D main		4	227.50		0.20	182.00		
cross road 2		4	58.50		0.20	46.80		
2nd Cross Road		4	39.00		0.20	31.20		
Old Panchayath Road		4	219.70		0.40	351.52		
Parallel Road		4	145.60		0.20	116.48		
cross road 2								
					Total Quantity	3793.36	1322.20	5015580.59
Rate Analysis								
Basic Rate	1202.00							
Area Weightage @10%	120.20							
Total Amount	1322.20							

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Providing Flush/ Ruled pointing: Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) after raking joints to depth nicely lining, including cost of materials, labour, curing as per specifications and as per directions of Engineer-in-charge.Item No.8.19.1,Page No.44, Vol II SR 21-22								
	Sqm							
Pointing								
B K Nagar								
1st C Main Road		4	126.75		0.20	101.40		
3rd B Main Road		4	48.10		0.20	38.48		
12th A Cross Road		4	64.35		0.20	51.48		
2nd main Road		4	298.35		0.20	238.68		
12th Cross Road		4	163.15		0.20	130.52		
1st A Cross Road		4	46.80		0.20	37.44		
2nd Cross Road		4	46.15		0.20	36.92		
1st D Cross Road		4	52.00		0.20	41.60		
14th Cross road		4	83.85		0.20	67.08		
T S Govindaraj Road		4	70.85		0.20	56.68		
Cr Rd		4	61.10		0.20	48.88		
11th Cross		4	27.95		0.20	22.36		
Cr Rd		4	78.00		0.20	62.40		
1st A Cross Road		4	60.45		0.20	48.36		
1st Cross Road		4	61.10		0.20	48.88		
2nd Cross Road		4	61.75		0.20	49.40		
3rd Cross Road		4	61.75		0.20	49.40		
4th Cross Road		4	62.40		0.20	49.92		
1st Cross Road		4	36.40		0.20	29.12		
Cr Rd		4	227.50		0.20	182.00		
Cr rd		2	263.25		0.20	210.60		
2nd Cross Road		4	58.50		0.20	23.40		
13th main road		4	115.05		0.20	92.04		
12th main road		4	109.20		0.20	87.36		
LN COLONY								
2nd B main		4	113.75		0.20	91.00		
1st cross road		4	136.50		0.20	109.20		
1st D main		2	78.00		0.20	31.20		
1st D main		4	61.75		0.20	49.40		
1st D main		4	63.70		0.20	50.96		
cross road 2		4	227.50		0.20	182.00		
2nd Cross Road		4	58.50		0.20	46.80		
Old Panchayath Road		4	39.00		0.20	31.20		
Parallel Road		4	219.70		0.20	175.76		
cross road 2		4	145.60		0.20	116.48		
					Total Quantity	2688.40	220.00	591448.00
Rate Analysis								
Basic Rate	200.00							
Area Weightage @10%	20.00							
Total Amount	220.00							
Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately).Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate.Item No.2.1.4,Page No.15, Vol I SR 21-22								
	Sqm							
Plastering								
B K Nagar								
1st C Main Road								
3rd B Main Road		4	126.75	0.20	0.10	10.14		
12th A Cross Road		4	48.10	0.20	0.10	3.85		
2nd main Road		4	64.35	0.20	0.10	5.15		
12th Cross Road		4	298.35	0.20	0.10	23.87		
1st A Cross Road		4	163.15	0.20	0.10	13.05		
2nd Cross Road		4	46.80	0.20	0.10	3.74		
		4	46.15	0.20	0.10	3.69		

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
9th Cross road		4	83.85	0.20	0.10	6.71		
15 Govindaraj Road		4	70.85	0.20	0.10	5.67		
CT Rd		4	61.10	0.20	0.10	4.89		
11th Cross		4	27.95	0.20	0.10	2.24		
CT Rd		4	78.00	0.20	0.10	6.24		
1st A Cross Road		4	60.45	0.20	0.10	4.84		
1st Cross Road		4	61.10	0.20	0.10	4.89		
2nd Cross Road		4	61.75	0.20	0.10	4.94		
3rd Cross Road		4	61.75	0.20	0.10	4.94		
4th Cross Road		4	62.40	0.20	0.10	4.99		
1st Cross Road		4	36.40	0.20	0.10	2.91		
CT Rd		4	227.50	0.20	0.10	18.20		
2nd Cross Road		4	263.25	0.20	0.10	21.06		
13th main road		2	58.50	0.20	0.10	2.34		
12th main road		4	115.05	0.20	0.10	9.20		
LN COLONY		4	109.20	0.20	0.10	8.74		
2nd B main								
1st cross road		4	113.75	0.20	0.10	9.10		
1st D main		4	136.50	0.20	0.10	10.92		
1st D main		2	78.00	0.20	0.10	3.12		
1st D main		4	61.75	0.20	0.10	4.94		
cross road 2		4	63.70	0.20	0.10	5.10		
2nd Cross Road		4	227.50	0.20	0.10	18.20		
Old Panchayath Road		4	58.50	0.20	0.10	4.68		
Parallel Road		4	39.00	0.20	0.10	3.12		
cross road 2		4	219.70	0.20	0.10	17.58		
		4	145.60	0.20	0.10	11.65		
						Total Quantity	268.84	6518.60	1752460.42
Rate Analysis								
Basic Rate	5926.00							
Area Weightage @10%	592.60							
Total Amount	6518.60							
Providing B S Slabs of selected quality roughly dressed having a size of 10cms thick and fixed in cement mortar (1:6) including fixing curing etc., complete.as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)								
	Sqm							
Missing And Broken Slab 35 %						3739.47		
						Total Quantity	3739.47	837.00	3129936.39
Rate Analysis								
Basic Rate	837.00							
Total Amount	837.00							
Providing one line dressing to granite stone slab / granite stone masonry as per specifications. as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)								
	Sqm							
Missing And Broken Slab 35 %						3739.47		
						Total Quantity	3739.47	242.00	904951.74
Rate Analysis								
Basic Rate	242.00							
Total Amount	242.00							
Providing Machine Cutting edges to B S Slabs 2.5cms.wide as per Specifications.(Only Chamfered length Shall be recorded)inclusive of all taxes Complete.,as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)								
	Sqm							
Missing And Broken Slab 35 %		1	3116.00	3.00		9348.00		
						Total Quantity	9348.00	390.00	3645720.00
Rate Analysis								
Basic Rate	390.00							
Total Amount	390.00							

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Providing 20 mm cement plaster of mix :1:4 (1 cement: 4 fine sand) to brick/stone masonary including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge. KWTD 2021-22, V-II, Item No.8.3.1, Page No.41)								
Plastering	Sqm							
		490	2.30		0.40	450.80		
					Total Quantity	450.80	337.70	152235.16
Rate Analysis								
Basic Rate	307.00							
Area Weightage @10%	30.70							
Total Amount	337.70							
Providing & laying precast drain corner cover slab of 200 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(1.2 x 0.20) Approved Data rate								
New Rcc Drain 1200 cm	Sqm							
		98				98.00		
					Total Quantity	98.00	10492.00	1028216.00
Basic Rate	10492.00							
Area Weightage @10%								
Total Amount	10492.00							
Providing & laying precast drain corner cover slab of 200 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(0.9 x 0.20) Approved Data rate								
New Rcc Drain 900 cm	Sqm							
		147				147.00		
					Total Quantity	147.00	8051.00	1183497.00
Basic Rate	8051.00							
Area Weightage @10%								
Total Amount	8051.00							
Providing & laying precast drain slab of 230 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(1.2 x 0.23) Approved Data rate								
	Sqm							
Missing Slab Culverts		30	7.00	1.50		38.50		
50% Missing						19.25		
					Total Quantity	19.25	5440.98	104738.87
Basic Rate	5440.98							
Area Weightage @10%								
Total Amount	5440.98							
Removing and resetting of kerb stones.Page No. 270								
	No's							
B K Nagar								
1st C Main Road		2	126.75			253.50		
3rd B Main Road		2	48.10			96.20		
12th A Cross Road		2	64.35			128.70		
2nd main Road		2	298.35			596.70		
12th Cross Road		2	163.15			326.30		
1st A Cross Road		2	46.80			93.60		
2nd Cross Road		2	46.15			92.30		
1st D Cross Road		2	52.00			104.00		
19th Cross road		2	83.85			167.70		
T.S Govindaraj Road		2	70.85			141.70		
Cr Rd		2	61.10			122.20		
11th Cross		2	27.95			55.90		
Cr Rd		2	78.00			156.00		
1st A Cross Road		2	60.45			120.90		
1st Cross Road		2	61.10			122.20		
2nd Cross Road		2	61.75			123.50		
[illegible] Road		2	61.75			123.50		

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
th Cross Road		2	62.40			124.80		
st Cross Road		2	36.40			72.80		
Cr Rd		2	227.50			455.00		
Cr rd		2	263.25			526.50		
2nd Cross Road		1	58.50			58.50		
13th main road		2	115.05			230.10		
12th main road		2	109.20			218.40		
LN COLONY								
2nd B main		2	113.75			227.50		
1st cross road		2	136.50			273.00		
1st D main		1	78.00			78.00		
1st D main		2	61.75			123.50		
1st D main		2	63.70			127.40		
cross road 2		2	227.50			455.00		
2nd Cross Road		2	58.50			117.00		
Old Panchayath Road		2	39.00			78.00		
Parallel Road		2	219.70			439.40		
cross road 2		2	145.60			291.20		
Missing & Broken 45 %						-3024.45		
						3696.55		
						3696.55	118.00	436192.90
Data Rate	118.00							
Total	118.00							

Providing and fixing pre cast solid cement concrete kerb stones made out of M20 with top and bottom width 114 and 165mm respectively,400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork,curing including cost of materials,labour charges of machinery,loading and unloading,lead and lift,transportation etc., complete as directed by the Engineer in charge of the work (Excluding GST and Area Leading Charges)

	No's							
Missing & Broken 45 %								
						3024.45		
Length/0.45						6721.00	507.00	3407547.00
Data Rate	507.00							
Total	507.00							

Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces.Painting Two Coats on New Concrete Surfaces.**Item No.8.1,Page No.56, Vol III SR 21-22**

	Sqm							
		1	6721.00		0.30	2016.30		
						2016.30	93.50	188524.05
Basic Rate	85.00							
Area Weightage @ 10%	8.50							
Total	93.50							

Construction Total Amount	2,49,14,862.67
Add GST Charges 18%	44,84,675.28
Add Detailed Project Report (DPR) and PMC Charges 2.0%	6,00,000.00
Sub Total	2,99,99,537.95
Miscellaneous and unforeseen charges etc.L.S	462.05
Grand Total	3,00,00,000.00

Certificate:

1. The work spot has been inspected and found to be necessary
2. The provisions made in the estimate are necessary and minimum
3. The estimate is based on CSR of 2021-22 of Issue Rates on 07.04.2022

Assistant Engineer

Asst Exe Engineer
AEE - YPR

Executive Engineer
RRN Dgrh

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BRUHATH BANGALORE MAHANAGARA PALIKE
EXECUTIVE ENGINEER, RR NAGAR DIVISION

Name of Works : Improvements of Drains & Culverts in JP Park And Surrounding Area in Ward No 17, JP Park

DETAILED ESTIMATE

Estimated Cost= 5,00,00,000.00

Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Removing & Refixing stone slabs of drains and pointing in C.M (1:3) Data Rate								
	Cum							
For								
Ward No 17		2	172.00	0.90		309.60		
13th C Main Road		2	196.00	0.90		352.80		
13th B Main Road		2	242.00	0.90		435.60		
2nd Cross Road		2	450.00	1.20		1080.00		
CrRD		2	278.00	0.90		500.40		
16th Main Rd		2	206.00	0.90		370.80		
15th A Main Road		2	183.00	0.90		329.40		
14th B Main Rd		2	184.00	0.90		331.20		
14th A Main Rd		2	153.00	1.20		367.20		
14th Main Rd		2	136.00	1.20		326.40		
Smiles Hospetal Rd								
HMT Layout		2	310.00	1.20		744.00		
17th Cross Road		2	245.00	1.20		588.00		
3rd Cross Rd								
Akkivappa Gardan		2	115.00	1.20		276.00		
6th Main Road		2	140.00	1.20		336.00		
5th Cross Road		2	235.00	1.20		564.00		
9th Cross Road		2	280.00	1.20		672.00		
10th Cross Road		2	288.00	1.20		691.20		
12th Cross Road		2	280.00	1.20		672.00		
Cross RD								
Muthyalana Nagara		2	366.00	1.20		878.40		
5th B Cross Road		2	352.00	1.20		844.80		
15th A crossRoad		2	392.00	1.20		940.80		
15th crossRoad		2	510.00	1.20		1224.00		
18th Cross Road		2	564.00	1.20		1353.60		
17th Cross Road		2	398.00	1.20		955.20		
15th Main Rd								
						-6057.36		
Missing And Broken Slab 40 %								
					Total Quantity	9086.04	212.00	1926240.48
Data Rate								
Data Rate	212.00							
Total Amount	212.00							
Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.In all kinds of soils Depth upto 1.5 m.Item No.1.4.1,Page No.A(5), Vol I CSR 21-22									
	Cum							
For Corner Slab								
Ward No 17		779	15.00	0.60	0.62	4346.82		
For Disilting								
Ward No 17								
13th C Main Road		2	172.00	0.60	0.60	123.84		
13th B Main Road		2	196.00	0.60	0.60	141.12		

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
1st Cross Road		2	242.00	0.60	0.50	145.20		
2nd RD		2	450.00	0.60	0.60	324.00		
2nd Main Rd		2	278.00	0.60	0.60	200.16		
2nd A Main Road		2	206.00	0.60	0.60	148.32		
2nd B Main Rd		2	183.00	0.60	0.60	131.76		
2nd C Main Rd		2	184.00	0.60	0.60	132.48		
2nd Main Rd		2	153.00	0.60	0.60	110.16		
2nd Hospetal Rd		2	136.00	0.60	0.60	97.92		
2nd MT Layout								
3rd Cross Road		2	310.00	0.60	0.50	186.00		
3rd Cross Rd		2	245.00	0.60	0.50	147.00		
3rd Main Road		2	115.00	0.60	0.50	69.00		
4th Cross Road		2	140.00	0.60	0.50	84.00		
5th Cross Road		2	235.00	0.60	0.50	141.00		
6th Cross Road		2	280.00	0.60	0.50	168.00		
7th Cross Road		2	288.00	0.60	0.50	172.80		
8th Cross RD		2	280.00	0.60	0.50	168.00		
Muthyalana Nagara								
9th B Cross Road		2	366.00	0.60	0.50	219.60		
10th A crossRoad		2	352.00	0.60	0.50	211.20		
10th crossRoad		2	392.00	0.60	0.50	235.20		
10th Cross Road		2	510.00	0.60	0.50	306.00		
11th Cross Road		2	564.00	0.60	0.50	338.40		
13th Main Rd		2	398.00	0.60	0.50	238.80		
					Total Quantity	8586.78	363.56	3121809.74
Rate Analysis								
Basic Rate	186.00							
Loading & unLoading	118.00							
Add for lead for earth (1.28 Tonne / Cum)	40.96							
Area Weightage @10%	18.60							
Total Amount	363.56							
Providing and laying in position plain cement concrete Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) (KWPD 2021-22, V-I, Item No.2.1.3, Page No.15)									
	Cum							
For Corner Slab								
Ward No 17		1558	2.30	0.20	0.15	107.50		
					Total Quantity	107.50	6327.20	680186.65
Rate Analysis								
Basic Rate	5752.00							
Area Weightage @10%	575.20							
Total Amount	6327.20							
Providing and constructing load bearing wall with Solid Concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications.I.No 6.32 P.No 17 Volume 2 SR 2021-22								
	Sqm							
For Corner Slab								
Ward No 17		1558	2.30		0.40	1433.36		
For Solid Block								
Ward No 17								
13th C Main Road		4	111.80		0.20	89.44		

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
12th Cross Road		4	157.30		0.20	125.84		
13th C Main Rd		4	292.50		0.20	234.00		
13th B Main Road		4	180.70		0.20	144.56		
13th A Main Rd		4	133.90		0.20	107.12		
14th B Main Road		4	118.95		0.20	95.16		
14th A Main Rd		4	119.60		0.20	95.68		
14th Main Rd		4	99.45		0.20	79.56		
Smiles Hospetal Rd		4	88.40		0.20	70.72		
HMT Layout								
17th Cross Road		4	201.50		0.20	161.20		
3rd Cross Rd		4	159.25		0.20	127.40		
6th Main Road		4	74.75		0.20	59.80		
5th Cross Road		4	91.00		0.20	72.80		
9th Cross Road		4	152.75		0.20	122.20		
10th Cross Road		4	182.00		0.20	145.60		
12th Cross Road		4	187.20		0.20	149.76		
Cross RD		4	182.00		0.20	145.60		
Muthyalana Nagara								
15th B Cross Road		4	237.90		0.40	380.64		
15th A crossRoad		4	228.80		0.20	183.04		
15th crossRoad		4	286.16		0.40	457.86		
18th Cross Road		4	433.50		0.20	346.80		
17th Cross Road		4	479.40		0.40	767.04		
15th Main Rd		4	338.30		0.20	270.64		
						Total Quantity	5967.74	1322.20	7890540.54

Rate Analysis	
Basic Rate	1202.00
Area Weightage @10%	120.20
Total Amount	1322.20

Providing Flush/ Ruled pointing: Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) after raking joints to depth nicely lining, including cost of materials, labour, curing as per specifications and as per directions of Engineer-in-charge.Item No.8.19.1,Page No.44, Vol II SR 21-22

	Sqm							
Pointing								
Ward No 17								
13th C Main Road		4	111.80		0.20	89.44		
13th B Main Road		4	127.40		0.20	101.92		
12nd Cross Road		4	157.30		0.20	125.84		
1Cr RD		4	292.50		0.20	234.00		
16th Main Rd		4	180.70		0.20	144.56		
15th A Main Road		4	133.90		0.20	107.12		
14th B Main Rd		4	118.95		0.20	95.16		
14th A Main Rd		4	119.60		0.20	95.68		
14th Main Rd		4	99.45		0.20	79.56		
Smiles Hospetal Rd		4	88.40		0.20	70.72		
HMT Layout								
17th Cross Road		4	201.50		0.20	161.20		
3rd Cross Rd		4	159.25		0.20	127.40		
6th Main Road		4	74.75		0.20	59.80		
5th Cross Road		4	91.00		0.20	72.80		
9th Cross Road		4	152.75		0.20	122.20		
10th Cross Road		4	182.00		0.20	145.60		
12th Cross Road		4	187.20		0.20	149.76		
Cross RD		4	182.00		0.20	145.60		
Muthyalana Nagara								
15th B Cross Road		4	237.90		0.40	380.64		
15th A crossRoad		4	228.80		0.20	183.04		
15th crossRoad		4	286.16		0.40	457.86		
18th Cross Road		4	433.50		0.20	346.80		
17th Cross Road		4	479.40		0.40	767.04		
15th Main Rd		4	338.30		0.20	270.64		
						Total Quantity	4534.38	220.00	997562.72

Rate Analysis	
Basic Rate	200.00

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Area Weightage @10%	20.00							
Total Amount	220.00							

Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately).Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate.Item No.2.1.4,Page No.15, Vol I SR 21-22

	Sqm							
Plastering								
Ward No 17		4	111.80	0.20	0.10	8.94		
13th C Main Road		4	127.40	0.20	0.10	10.19		
13th B Main Road		4	157.30	0.20	0.10	12.58		
2nd Cross Road		4	292.50	0.20	0.10	23.40		
Cr RD		4	180.70	0.20	0.10	14.46		
16th Main Rd		4	133.90	0.20	0.10	10.71		
15th A Main Road		4	118.95	0.20	0.10	9.52		
14th B Main Rd		4	119.60	0.20	0.10	9.57		
14th A Main Rd		4	99.45	0.20	0.10	7.96		
14th Main Rd		4	88.40	0.20	0.10	7.07		
Smiles Hospetal Rd								
HMT Layout		4	201.50	0.20	0.10	16.12		
7th Cross Road		4	159.25	0.20	0.10	12.74		
3rd Cross Rd		4	74.75	0.20	0.10	5.98		
6th Main Road		4	91.00	0.20	0.10	7.28		
5th Cross Road		4	152.75	0.20	0.10	12.22		
9th Cross Road		4	182.00	0.20	0.10	14.56		
10th Cross Road		4	187.20	0.20	0.10	14.98		
12th Cross Road		4	182.00	0.20	0.10	14.56		
Cross RD								
Muthvalana Nagara		4	237.90	0.20	0.10	19.03		
5th B Cross Road		4	228.80	0.20	0.10	18.30		
15th A crossRoad		4	286.16	0.20	0.10	22.89		
15th crossRoad		4	433.50	0.20	0.10	34.68		
18th Cross Road		4	479.40	0.20	0.10	38.35		
17th Cross Road		4	338.30	0.20	0.10	27.06		
15th Main Rd								
					Total Quantity	373.16	6518.60	2432485.99
Rate Analysis								
Basic Rate	5926.00							
Area Weightage @10%	592.60							
Total Amount	6518.60							

Providing B S Slabs of selected quality roughly dressed having a size of 10cms thick and fixed in cement mortar (1:6) including fixing curing etc., complete.as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)

	Sqm							
Missing And Broken Slab 40 %						6057.36		
					Total Quantity	6057.36	837.00	5070010.32
Rate Analysis								
Basic Rate	837.00							
Total Amount	837.00							

Providing one line dressing to granite stone slab / granite stone masonry as per specifications. as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)

	Sqm							
Missing And Broken Slab 40 %						6057.36		
					Total Quantity	6057.36	242.00	1465881.12
Rate Analysis								
Basic R...	242.00							

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Total Amount	242.00							
Providing Machine Cutting edges to B S Slabs 2.5cms.wide as per Specifications.(Only Chamfered length shall be recorded)inclusive of all taxes Complete.,as directed by the Engineer in Charge of the work including GST and Area Leading Charges)								
	Sqm							
Missing And Broken Slab 40 %		1	5048.00	3.00		15144.00		
					Total Quantity	15144.00	390.00	5906160.00
Rate Analysis								
Basic Rate	390.00							
Total Amount	390.00							
Providing 20 mm cement plaster of mix :1:4 (1 cement: 4 fine sand) to brick/stone masonary including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge. KWD 2021-22, V-II, Item No.8.3.1, Page No.41)								
	Sqm							
Plastering		1558	2.30		0.40	1433.36		
					Total Quantity	1433.36	337.70	484045.67
Rate Analysis								
Basic Rate	307.00							
Area Weightage @10%	30.70							
Total Amount	337.70							
Providing & laying precast drain corner cover slab of 200 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(1.2 x 0.20) Approved Data rate								
	Sqm							
New Rcc Drain 1200 cm		234				234.00		
					Total Quantity	234.00	10492.00	2455128.00
Basic Rate	10492.00							
Area Weightage @10%								
Total Amount	10492.00							
Providing & laying precast drain corner cover slab of 200 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(0.9 x 0.20) Approved Data rate								
	Sqm							
New Rcc Drain 900 cm		545				545.00		
					Total Quantity	545.00	8051.00	4387795.00
Basic Rate	8051.00							
Area Weightage @10%								
Total Amount	8051.00							
Providing & laying precast drain slab of 230 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(1.2 x 0.23) Approved Data rate								
	Sqm							
Missing Slab Culverts		22	6.00	1.50		29.50		
30 % Missing						8.85		
					Total Quantity	8.85	5440.98	48152.67
Basic Rate	5440.98							
Area Weightage @10%								
Total Amount	5440.98							
Removing and resetting of kerb stones.Page No. 270								
	No's							
Ward No 17								
13th C Main Road		2	111.80			223.60		

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Description of work	Unit	Nos	Dimentions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Cross Road		2	157.30			314.60		
Main Rd		2	292.50			585.00		
Main Road		2	180.70			361.40		
Main Rd		2	133.90			267.80		
Main Rd		2	118.95			237.90		
Main Rd		2	119.60			239.20		
Hospital Rd		2	99.45			198.90		
Cross		2	88.40			176.80		
Cross Road								
Cross Rd		2	201.50			403.00		
Main Road		2	159.25			318.50		
Cross Road		2	74.75			149.50		
Cross Rd		2	91.00			182.00		
Main Road		2	152.75			305.50		
Cross Road		2	182.00			364.00		
Cross Road		2	187.20			374.40		
Cross Road		2	182.00			364.00		
Cross Road								
Rd		2	237.90			475.80		
Nagara		2	228.80			457.60		
Cross Road		2	286.16			572.32		
CrossRoad		2	433.50			867.00		
Cross Road		2	479.40			958.80		
Cross Road		2	338.30			676.60		
Main Rd						-3265.16		
Missing & Broken35 %						6063.86		
						6063.86	118.00	715535.83
Data Rate	118.00							
Total	118.00							
Providing and fixing pre cast solid cement concrete kerb stones made out of M20 with top and bottom width 114 and 165mm respectively,400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork,curing including cost of materials,labour charges of machinery,loading and unloading,lead and lift,transportation etc., complete as directed by the Engineer in charge of the work (Excluding GST and Area Leading Charges)								
	No's							
Missing & Broken35 %								
						3265.16		
Length/0.45						7255.90	507.00	3678743.55
Data Rate	507.00							
Total	507.00							

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces.Painting Two Coats on New Concrete Surfaces.Item No.8.1,Page No. 68 Vol III SR 21-22	Sqm	1	9329.02		0.30	2798.71	93.50	261679.01
						2798.71		
Basic Rate	85.00							
For Weightage @ 10%	8.50							
Total	93.50							

Construction Total Amount	4,15,21,957.30
Add GST Charges 18%	74,73,952.31
Add Detailed Project Report (DPR) and PMC Charges 2.0%	10,00,000.00
Sub Total	4,99,95,909.61
Miscellaneous and unforeseen charges etc.L.S	4,090.39
Grand Total	5,00,00,000.00

Certificate:

1. The work spot has been inspected and found to be necessary
2. The provisions made in the estimate are necessary and minimum
3. The estimate is based on CSR of 2021-22 of Issue Rates on 07.04.2022

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Assistant Engineer
Ward No 17

Asst Exe Engineer
Yashwanthapura Sub Division

Executive Engineer
RR Nagar Division

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BRUHATH BANGALORE MAHANAGARA PALIKE
EXECUTIVE ENGINEER, RR NAGAR DIVISION

Name of Works : Improvements of Drains & Culverts in Jalahalli And Surrounding Area in Ward No 16, Jalahalli

DETAILED ESTIMATE

Description of work	Unit	Nos	Dimenstions in m			Estimated Cost=		3,00,00,000.00
			L in m	B in m	D in m	Quantity	Rate in Rs.	Amount in Rs.
Removing & Refixing stone slabs of drains and pointing in C.M (1:3) Data Rate								
	Cum							
Near Corner Slab								
Ward No 16								
2nd Cross Road		2	152.00	1.20		364.80		
3rd Cross Road		2	110.00	0.90		198.00		
4th Cross Road		2	88.00	0.90		158.40		
5th Cross Road		2	183.00	0.90		329.40		
8th Main Road		2	476.00	0.90		856.80		
16th Main Road		2	106.00	0.90		190.80		
K Anjinappa Road		2	224.00	1.20		537.60		
15th A Cross Road		2	192.00	1.20		460.80		
14th Main Bahubali Nagar		2	238.00	0.90		428.40		
16th A Cross Road Bahuballi Nagar		2	202.00	0.90		363.60		
Sharadamba Nagar								
4th Main Sharadamba Nagar		2.00	89.00	0.90		160.20		
15th C Cross Road		2.00	229.00	1.20		549.60		
15th A Cross Road Sharadambha Nagar		2.00	158.00	1.20		379.20		
15th B Cross Road Sharadambha Nagar		2.00	135.00	0.90		243.00		
1st Cross Road		2.00	135.00	1.20		324.00		
18th Main Road		2.00	50.00	0.90		90.00		
3rd Main		2.00	120.00	1.20		288.00		
Cross Rd		2.00	368.00	1.20		883.20		
Bahubali Nagar								
14th Main Bahubali Nagar		2.00	249.00	1.20		597.60		
16th A Cross Road Bahuballi Nagar		2.00	245.00	1.20		588.00		
Pipeline Road		1.00	420.00	1.50		630.00		
Sri Muthyalama Temple Road		2.00	321.00	1.20		770.40		
Kadambha Road		2.00	115.00	1.20		276.00		
15th A Cross Road		2.00	203.00	0.90		365.40		
16th Cross Road		2.00	210.00	0.90		378.00		
12th A Cross Road		2.00	184.00	0.90		331.20		
17th Main Road		2.00	170.00	0.90		306.00		
2nd Main Road		2.00	363.00	0.90		653.40		
Missing And Broken Slab 35 %						-4095.63		
					Total Quantity	7606.17	212.00	1612508.04
Data Rate								
Basic Rate	212.00							
Total Amount	212.00							

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.In all kinds of soils Depth upto 1.5 m.Item No.1.4.1,Page No.A(5), Vol I CSR 21-22								
	Cum							
For Corner Slab		155	15.00	0.60	0.62	864.90		
Ward No 16								
For Disilting								
Ward No 16								
2nd Cross Road		2	152.00	0.60	0.60	109.44		
3rd Cross Road		2	110.00	0.60	0.60	79.20		
4th Cross Road		2	88.00	0.60	0.50	52.80		
5th Cross Road		2	183.00	0.60	0.60	131.76		
8th Main Road		2	476.00	0.60	0.60	342.72		
9th Main Road		2	106.00	0.60	0.60	76.32		
K Anjinappa Road		2	224.00	0.60	0.60	161.28		
5th A Cross Road		2	192.00	0.60	0.60	138.24		
4th Main Bahubali		2	238.00	0.60	0.60	171.36		
6th A Cross Road		2	202.00	0.60	0.60	145.44		
Sharadamba Nagar								
4th Main Sharadamba		2	89.00	0.60	0.50	53.40		
5th C Cross Road		2	229.00	0.60	0.50	137.40		
5th A Cross Road		2	158.00	0.60	0.50	94.80		
5th B Cross Road		2	135.00	0.60	0.50	81.00		
1st Cross Road		2	135.00	0.60	0.50	81.00		
8th Main Road		2	50.00	0.60	0.50	30.00		
3rd Main		2	120.00	0.60	0.50	72.00		
Cross Rd		2	368.00	0.60	0.50	220.80		
Bahubali Nagar								
4th Main Bahubali		2	249.00	0.60	0.50	149.40		
6th A Cross Road Bahuballi Nagar		2	245.00	0.60	0.50	147.00		
Pipeline Road		1	420.00	0.60	0.50	126.00		
Sri Muthyalama Temple Road		2	321.00	0.60	0.50	192.60		
Kadambha Road		2	115.00	0.60	0.50	69.00		
5th A Cross Road		2	203.00	0.60	0.50	121.80		
6th Cross Road		2	210.00	0.60	0.50	126.00		
2th A Cross Road		2	184.00	0.60	0.50	110.40		
7th Main Road		2	170.00	0.60	0.50	102.00		
2nd Main Road		2	363.00	0.60	0.50	217.80		
					Total Quantity	4405.86	363.56	1601794.46

Rate Analysis	
Basic Rate	186.00
Loading & unLoading	118.00
Add for lead for earth (1.28 Tonne / Cum)	40.96
Area Weightage @10%	18.60
Total Amount	363.56

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Providing and laying in position plain cement concrete Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates for levelling course for all works in foundation. The aggregates (trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS specifications, machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per the technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) CUPD 2021-22, V-I, Item No.2.1.3, Page No.15)								
	Cum							
For Corner Slab								
		310	2.30	0.20	0.15	21.39		
Ward No 16								
						Total Quantity	21.39	6327.20	135338.81
Rate Analysis								
Basic Rate	5752.00							
Area Weightage @10%	575.20							
Total Amount	6327.20							
Providing and constructing load bearing wall with Solid Concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications.I.No 6.32 P.No 17 Volume 2 SR 2021-22								
	Sqm							
For Corner Slab								
		310	2.30		0.40	285.20		
Ward No 16								
For Solid Block								
Ward No 16								
		4	98.80		0.20	79.04		
2nd Cross Road		4	71.50		0.20	57.20		
3rd Cross Road		4	57.20		0.20	45.76		
4th Cross Road		4	118.95		0.20	95.16		
5th Cross Road		4	309.40		0.20	247.52		
8th Main Road		4	68.90		0.20	55.12		
6th Main Road		4	145.60		0.20	116.48		
K Anjinappa Road		4	109.44		0.20	87.55		
5th A Cross Road		4	119.00		0.20	95.20		
4th Main Bahubali		4	101.00		0.20	80.80		
6th A Cross Road								
Sharadamba Nagar								
4th Main Sharadamba		4	66.75		0.20	53.40		
5th C Cross Road		4	171.75		0.20	137.40		
5th A Cross Road		4	118.50		0.20	94.80		
5th B Cross Road		4	101.25		0.20	81.00		
1st Cross Road		4	101.25		0.20	81.00		
8th Main Road		4	37.50		0.20	30.00		
3rd Main		4	90.00		0.20	72.00		
Cross Rd		4	276.00		0.40	441.60		
Bahubali Nagar								
4th Main Bahubali		4	179.28		0.20	143.42		
6th A Cross Road Bahuballi Nagar		4	176.40		0.20	141.12		
Pipeline Road		2	302.40		0.40	241.92		
Sri Muthyalama Temple Road		4	231.12		0.40	369.79		
Kadambha Road		4	82.80		0.20	66.24		
5th A Cross Road		4	146.16		0.20	116.93		
6th Cross Road		4	151.20		0.20	120.96		
2th A Cross Road		4	132.48		0.20	105.98		
7th Main Road		4	122.40		0.20	97.92		

Scanned with CamScanner

Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
2nd Main Road		4	261.36		0.20	209.09		
					Total Quantity	3849.61	1322.20	5089951.70
Rate Analysis								
Basic Rate	1202.00							
Area Weightage @10%	120.20							
Total Amount	1322.20							
Providing Flush/ Ruled pointing: Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) after raking joints to depth nicely lining, including cost of materials, labour, curing as per specifications and as per directions of Engineer-in-charge.Item No.8.19.1,Page No.44, Vol II SR 21-22								
	Sqm							
Pointing								
Ward No 16								
2nd Cross Road		4	98.80		0.20	79.04		
3rd Cross Road		4	71.50		0.20	57.20		
4th Cross Road		4	57.20		0.20	45.76		
5th Cross Road		4	118.95		0.20	95.16		
5th Main Road		4	309.40		0.20	247.52		
6th Main Road		4	68.90		0.20	55.12		
K Anjinappa Road		4	145.60		0.20	116.48		
5th A Cross Road		4	109.44		0.20	87.55		
4th Main Bahubali		4	119.00		0.20	95.20		
5th A Cross Road		4	101.00		0.20	80.80		
Sharadamba Nagar								
4th Main Sharadamba		4	66.75		0.20	53.40		
5th C Cross Road		4	171.75		0.20	137.40		
5th A Cross Road		4	118.50		0.20	94.80		
5th B Cross Road		4	101.25		0.20	81.00		
1st Cross Road		4	101.25		0.20	81.00		
8th Main Road		4	37.50		0.20	30.00		
3rd Main		4	90.00		0.20	72.00		
Cross Rd		4	276.00		0.40	441.60		
Bahubali Nagar								
4th Main Bahubali		4	179.28		0.20	143.42		
6th A Cross Road Bahuballi Nagar		4	176.40		0.20	141.12		
Pipeline Road		2	302.40		0.40	241.92		
Sri Muthyalama Temple Road		4	231.12		0.40	369.79		
Kadambha Road		4	82.80		0.20	66.24		
5th A Cross Road		4	146.16		0.20	116.93		
6th Cross Road		4	151.20		0.20	120.96		
2th A Cross Road		4	132.48		0.20	105.98		
7th Main Road		4	122.40		0.20	97.92		
2nd Main Road		4	261.36		0.20	209.09		
					Total Quantity	3564.41	220.00	784169.76
Rate Analysis								
Basic Rate	200.00							
Area Weightage @10%	20.00							
Total Amount	220.00							

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately).Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate.Item No.2.1.4,Page No.15, Vol I SR 21-22								
Plastering	Sqm							
Ward No 16		4	98.80	0.20	0.10	7.90		
2nd Cross Road		4	71.50	0.20	0.10	5.72		
3rd Cross Road		4	57.20	0.20	0.10	4.58		
10th Cross Road		4	118.95	0.20	0.10	9.52		
9th Cross Road		4	309.40	0.20	0.10	24.75		
5th Main Road		4	68.90	0.20	0.10	5.51		
8th Main Road		4	145.60	0.20	0.10	11.65		
K Anjinappa Road		4	109.44	0.20	0.10	8.76		
5th A Cross Road		4	119.00	0.20	0.10	9.52		
4th Main Bahubali		4	101.00	0.20	0.10	8.08		
6th A Cross Road								
Sharadamba Nagar		4	66.75	0.20	0.10	5.34		
4th Main Sharadamba		4	171.75	0.20	0.10	13.74		
5th C Cross Road		4	118.50	0.20	0.10	9.48		
5th A Cross Road		4	101.25	0.20	0.10	8.10		
5th B Cross Road		4	101.25	0.20	0.10	8.10		
1st Cross Road		4	37.50	0.20	0.10	3.00		
8th Main Road		4	90.00	0.20	0.10	7.20		
3rd Main		4	276.00	0.20	0.10	22.08		
Cross Rd								
Bahubali Nagar		4	179.28	0.20	0.10	14.34		
4th Main Bahubali		4	176.40	0.20	0.10	14.11		
6th A Cross Road								
Bahuballi Nagar								
Pipeline Road		2	302.40	0.20	0.10	12.10		
Sri Muthyalama Temple		4	231.12	0.20	0.10	18.49		
Road		4	82.80	0.20	0.10	6.62		
Kadambha Road		4	146.16	0.20	0.10	11.69		
5th A Cross Road		4	151.20	0.20	0.10	12.10		
6th Cross Road		4	132.48	0.20	0.10	10.60		
2th A Cross Road		4	122.40	0.20	0.10	9.79		
7th Main Road		4	261.36	0.20	0.10	20.91		
2nd Main Road								
					Total Quantity	303.78	6518.60	1980189.02
Rate Analysis								
Basic Rate	5926.00							
Area Weightage @10%	592.60							
Total Amount	6518.60							
Providing B S Slabs of selected quality roughly dressed having a size of 10cms thick and fixed in cement mortar (1:6) including fixing curing etc., complete.as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)								
	Sqm							
Missing And Broken Slab 35 %						4095.63		
					Total Quantity	4095.63	837.00	3428042.31
Rate Analysis								
Basic Rate	837.00							
Total Amount	837.00							

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Providing one line dressing to granite stone slab / granite stone masonry as per specifications, as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)								
	Sqm							
Missing And Broken Slab 35 %						4095.63		
					Total Quantity	4095.63	242.00	991142.46
Rate Analysis								
Basic Rate	242.00							
Total Amount	242.00							
Providing Machine Cutting edges to B S Slabs 2.5cms.wide as per Specifications.(Only Chamfered length shall be recorded)inclusive of all taxes Complete.,as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)								
	Sqm							
Missing And Broken Slab 35 %		1	3413.00	3.00		10239.00		
					Total Quantity	10239.00	390.00	3993210.00
Rate Analysis								
Basic Rate	390.00							
Total Amount	390.00							
Providing 20 mm cement plaster of mix :1:4 (1 cement: 4 fine sand) to brick/stone masonary including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge. (KWPD 2021-22, V-II, Item No.8.3.1, Page No.41)								
	Sqm							
Plastering		310	2.30		0.40	285.20		
					Total Quantity	285.20	337.70	96312.04
Rate Analysis								
Basic Rate	307.00							
Area Weightage @10%	30.70							
Total Amount	337.70							
Providing & laying precast drain corner cover slab of 200 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(1.2 x 0.20) Approved Data rate								
	Sqm							
New Rcc Drain 1200 cm		47				47.00		
					Total Quantity	47.00	10492.00	493124.00
Basic Rate	10492.00							
Area Weightage @10%								
Total Amount	10492.00							
Providing & laying precast drain corner cover slab of 200 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(0.9 x 0.20) Approved Data rate								
	Sqm							
New Rcc Drain 900 cm		108				108.00		
					Total Quantity	108.00	8051.00	869508.00
Basic Rate	8051.00							
Area Weightage @10%								
Total Amount	8051.00							
Providing & laying precast drain slab of 230 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(1.2 x 0.23) Approved Data rate								
	Sqm							
Missing Slab Culverts		22	6.00	1.50		29.50		

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
						8.85		
					Total Quantity	8.85	5440.98	48152.67
% Missing								
Basic Rate	5440.98							
Area Weightage @10%								
Total Amount	5440.98							
Removing and resetting of kerb stones.Page No. 270								
	No's							
Ward No 16		2	98.80			197.60		
2nd Cross Road		2	71.50			143.00		
3rd Cross Road		2	57.20			114.40		
4th Cross Road		2	118.95			237.90		
5th Cross Road		2	309.40			618.80		
6th Main Road		2	68.90			137.80		
K Anjinappa Road		2	145.60			291.20		
7th A Cross Road		2	109.44			218.88		
4th Main Bahubali		2	119.00			238.00		
4th A Cross Road		2	101.00			202.00		
Sharadamba Nagar								
4th Main Sharadamba		2	66.75			133.50		
5th C Cross Road		2	171.75			343.50		
5th A Cross Road		2	118.50			237.00		
5th B Cross Road		2	101.25			202.50		
1st Cross Road		2	101.25			202.50		
8th Main Road		2	37.50			75.00		
3rd Main		2	90.00			180.00		
Cross Rd		2	276.00			552.00		
Bahubali Nagar								
4th Main Bahubali		2	179.28			358.56		
6th A Cross Road		2	176.40			352.80		
Bahuballi Nagar								
Pipeline Road		1	302.40			302.40		
Sri Muthyalama Temple		2	231.12			462.24		
Road								
Kadambha Road		2	82.80			165.60		
5th A Cross Road		2	146.16			292.32		
6th Cross Road		2	151.20			302.40		
2th A Cross Road		2	132.48			264.96		
7th Main Road		2	122.40			244.80		
2nd Main Road		2	261.36			522.72		
Missing & Broken 35 %						-2658.03		
						4936.35		
						4936.35	118.00	582488.95
Data Rate	118.00							
Total	118.00							

Providing and fixing pre cast solid cement concrete kerb stones made out of M20 with top and bottom width 114 and 165mm respectively,400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork,curing including cost of materials,labour charges of machinery,loading and unloading,lead and lift,transportation etc., complete as directed by the Engineer in charge of the work (Excluding GST and Area Leading Charges)

	No's							
Missing & Broken 35 %								
						2658.03		

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Description of work	Unit	Nos	Dimenstions in m			Quantity	Rate in Rs.	Amount in Rs.
			L in m	B in m	D in m			
Length0.45								
						5906.74	507.00	2994717.18
Data Rate	507.00							
Total	507.00							
Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces.Painting Two Coats on New Concrete Surfaces.Item No.8.1,Page No. 56, Vol III SR 21-22								
	Sqm							
		1	7594.38		0.30	2278.31		
						2278.31	93.50	213022.36
Basic Rate	85.00							
Add Weightage @ 10%	8.50							
Total	93.50							

Construction Total Amount	2,49,13,671.76
Add GST Charges 18%	44,84,460.92
Add Detailed Project Report (DPR) and PMC Charges 2.0%	6,00,000.00
Sub Total	2,99,98,132.67
Miscellaneous and unforeseen charges etc.L.S	1,867.33
Grand Total	3,00,00,000.00

Certificate:

1. The work spot has been inspected and found to be necessary
2. The provisions made in the estimate are necessary and minimum
3. The estimate is based on CSR of 2021-22 of Issue Rates on 07.04.2022

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Assistant Engineer
Ward No 16

Asst Exe Engineer
Yashwanthapura Sub Division

Executive Engineer
RR Nagar Division

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BRUHAT BANGALORE MAHANAGARA PALIKE

RR Nagar Division

...of Work : Comprehensive Development of Roads & Drains in JP Park, Yeshawanthapura, ...and Surrounding areas in W No.16, 17 and 37 under PACKAGE- 2022-23 RRN-DIV-(15).

DETAILED TENDER SCHEDULE

Description	Unit	Total Quantity	Rates In Rupees	Rates In Words
...& Refixing stone slabs of drains and pointing in C.M ...ata Rate	Cum	23636.94	212.00	Rupees Two Hundred Twelve Only
...work excavation by manual means for drains,canals, ...weir, draft, approach channels, key trenches, foundation ...ges and such simillar works in all kinds of soils , as per ...ng and technical specifications, including setting out,	Cum	17634.54	363.56	Rupees Three Hundred Sixty Three And Paise Fifty Six Only
...ding and laying in position plain cement concrete Mix ...(M10) Using 40 mm nominal size graded crushed coarse ...gates for levelling course for all works in foundation. The ...te/trap/basalt crushed graded coarse aggregates and fine ...gates as per relevant IS Codes machine mixed, laid in	Cum	162.70	6327.20	Rupees Six Thousand Three Hundred Twenty Seven And Paise Twenty Only
...ding and constructing load bearing wall with Solid ...rete blocks of size 400x200x200mm having block density ...than 1800kg/m3 and minimum compressive strength of ...N/mm2 conforming to IS 2185 (Part - I) - 2005 and ...ructed with CM 1:4 as per IS 2572:2005 including cost of	Sqm	13610.70	1322.20	Rupees One Thousand Three Hundred Twenty Two And Paise Twenty Only
...ding Flush/ Ruled pointing: Pointing on stone work with ...ent mortar 1:3 (1 cement : 3 fine sand) after raking joints ...epth nicely lining, including cost of materials, labour,	Sqm	10787.18	220.00	Rupees Two Hundred Twenty Only
...ding and laying in position plain cement concrete for ...ling course for all works in foundation. The ...te/trap/basalt crushed graded coarse aggregates and fine ...gates as per relevant IS Codes machine mixed, laid in ...s not exceeding 150 mm thickness, well compacted using	Sqm	945.78	6518.60	Rupees Six Thousand Five Hundred Eighteen And Paise Sixty Only
...ding B S Slabs of selected quality roughly dressed having ...e of 10cms thick and fixed in cement mortar (1:6) ...uding fixing curing etc., complete.as directed by the	Sqm	13892.46	837.00	Rupees Eight Hundred Thirty Seven Only
...ding one line dressing to granite stone slab / granite ...e masonry as per specifications. as directed by the ...neer in Charge of the work (Excluding GST and Area	Sqm	13892.46	242.00	Rupees Two Hundred Forty Two Only
...ding Machine Cutting edges to B S Slabs 2.5cms.wide as ...Specifications.(Only Chamfered length Shall be recorded ...clusive of all taxes Complete.,as directed by the Engineer in	Sqm	34731.00	390.00	Rupees Three Hundred Ninety Only
...viding 20 mm cement plaster of mix :1:4 (1 cement: 4 fine ...d) to brick/stone masonary including rounding off corners ...erever required smooth rendering, providing and removing ...folding, including cost of materials, labour, curing complete	Sqm	2169.36	337.70	Rupees Three Hundred Thirty Seven And Paise Seventy Only
...viding & laying precast drain corner cover slab of 200 mm ...ckness in CM 1:3 including cost of all materials, labour, ...ring, transportation, loading, unloading etc, complete as per ...e directions of the Engineer In Charge.(1.2 x 0.20) Approved ...ata rate	No's	379.00	10492.00	Rupees Ten Thousand Four Hundred Ninety Two Only
...oviding & laying precast drain corner cover slab of 200 mm ...ickness in CM 1:3 including cost of all materials, labour, ...uring, transportation, loading, unloading etc, complete as per	No's	800.00	8051.00	Rupees Eight Thousand Fifty One Only
...oviding & laying precast drain slab of 230 mm thickness in ...M 1:3 including cost of all materials, labour, curing, ...ansportation, loading, unloading etc, complete as per the ...irections of the Engineer In Charge.(1.2 x 0.23) Approved ...ata rate	Sqm	36.95	5440.98	Rupees Five Thousand Four Hundred Forty And Paise Ninety Eight Only
...emoving and resetting of kerb stones.Page No. 270	No's	14696.76	118.00	Rupees One Hundred Eighteen Only
...roviding and fixing pre cast solid cement concrete kerb ...tones made out of M20 with top and bottom width 114 and ...65mm respectively,400mm high and 450mm in length	No's	19883.64	507.00	Rupees Five Hundred Seven Only

No. of Corrections: NILL

P. N - (1)

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Description	Unit	Total Quantity	Rates In Rupees	Rates In Words
Two coats after filling the surface with synthetic paint in all shades on new plastered concrete surfaces including Two Coats on New Concrete Surfaces.Item	Sqm	7093.32	93.50	Rupees Ninety Three And Paise Fifty Only

Executive Engineer
RR NAGARA Division
BBMP

Total No. of pages : 02

Total No. of Corrections : NIL

"DTS APPROVED"

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ರಾಜರಾಜೇಶ್ವರಿ ನಗರ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾ...

P. N - (2)

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BRUHAT BANGALORE MAHANAGARA PALIKE

BILL OF QUANTITIES (BOQ) ABSTRACT ESTIMATE

e of Work : Comprehensive Development of Roads & Drains in JP park, Yeshawanthapura, Jalahalli and Surrounding areas in W No.16, 17 and 37 under PACKAGE- 2022-23 RRN-DIV-(15).

Description	Unit	45	46	47	Total Quantity	Rates In Rupees	Amount Rs.
ewing & Refixing stone slabs of drains and pointing in C.M (1:3) Data Rate	Cum	9086.04	6944.73	7606.17	23636.94	212.00	5011031.28
h work excavation by manual means for drains,canals, waste weir, draft, approach	Cum	8586.78	4641.90	4405.86	17634.54	363.56	6411213.36
viding and laying in position plain cement concrete Mix 1:3:6 (M10) Using 40 mm minal size graded crushed coarse aggregates for levelling course for all works in undation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well mpacted using plate vibrators, including all lead & lifts, cost of all materials of quality,	Cum	107.50	33.81	21.39	162.70	6327.20	1029448.09
viding and constructing load bearing wall with Solid Concrete blocks of size 0x200x200mm having block density more than 1800kg/m3 and minimum compressive ength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage nes of machinery etc complete as per specifications LNo.6.32.B.No.17 Volume-2 SR 2021-	Sqm	5967.74	3793.36	3849.61	13610.70	1322.20	17996072.83
oviding Flush/ Ruled pointing: Pointing on stone work with cement mortar 1:3 (1 cement fine sand) after raking joints to depth nicely lining, including cost of materials, labour, ring as per specifications and as per directions of Engineer-in-charge.Item No.8.19.1,Page :44, Vol II SR 21-22	Sqm	4534.38	2688.40	3564.41	10787.18	220.00	2373180.48
Providing and laying in position plain cement concrete for levelling course for all works in undation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well mpacted using plate vibrators, including all lead & lifts, cost of all materials of quality,	Sqm	373.16	268.84	303.78	945.78	6518.60	6165135.43
Providing B S Slabs of selected quality roughly dressed having a size of 10cms thick and ixed in cement mortar (1:6) including fixing curing etc., complete.as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)	Sqm	6057.36	3739.47	4095.63	13892.46	837.00	11627989.02
Providing one line dressing to granite stone slab / granite stone masonry as per pecifications. as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)	Sqm	6057.36	3739.47	4095.63	13892.46	242.00	3361975.32
Providing Machine Cutting edges to B S Slabs 2.5cms.wide as per Specifications.(Only hamfered length Shall be recorded)inclusive of all taxes Complete.,as directed by the Engineer in Charge of the work (Excluding GST and Area Leading Charges)	Sqm	15144.00	9348.00	10239.00	34731.00	390.00	13545090.00
Providing 20 mm cement plaster of mix :1:4 (1 cement: 4 fine sand) to brick/stone masonary including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge. (KWPD 2021-22, V-II, Item No.8.2.1, Page No.41)	Sqm	1433.36	450.80	285.20	2169.36	337.70	732592.87

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Description	Unit	45	46	47	Total Quantity	Rates In Rupees	Amount Rs.
...ding & laying precast drain corner cover slab of 200 mm thickness in CM 1:3 including ...of all materials, labour, curing, transportation, loading, unloading etc, complete as per ...irections of the Engineer In Charge.(1.2 x 0.20) Approved Data rate	No's	234.00	98.00	47.00	379.00	10492.00	3976468.00
...ding & laying precast drain corner cover slab of 200 mm thickness in CM 1:3 including ...of all materials, labour, curing, transportation, loading, unloading etc, complete as per ...irections of the Engineer In Charge.(0.9 x 0.20) Approved Data rate	No's	545.00	147.00	108.00	800.00	8051.00	6440800.00
...ding & laying precast drain slab of 230 mm thickness in CM 1:3 including cost of all ...erials, labour, curing, transportation, loading, unloading etc, complete as per the ...ctions of the Engineer In Charge.(1.2 x 0.23) Approved Data rate	Sqm	8.85	19.25	8.85	36.95	5440.98	201044.21
...oving and resetting of kerb stones.Page No. 270	No's	6063.86	3696.55	4936.35	14696.76	118.00	1734217.68
...iding and fixing pre cast solid cement concrete kerb stones made out of M20 with top ...bottom width 114 and 165mm respectively,400mm high and 450mm in length finished ...CM 1:3 plastering and finishing cutting including formwork,curing including cost of ...erials,labour charges of machinery,loading and unloading,lead and lift,transportation ...complete as directed by the Engineer in charge of the work (Excluding GST and Area ...ting two coats after filling the surface with synthetic enamel paint in all shades on new ...stered concrete surfaces.Painting Two Coats on New Concrete Surfaces.Item No.8.1,Page ...56, Vol III SR 21-22	No's	7255.90	6721.00	5906.74	19883.64	507.00	10081007.73
	Sqm	2798.71	2016.30	2278.31	7093.32	93.50	663225.42
						Construction Total Amount	91350491.74
						Add GST Charges 18%	16443088.51
						Add Detailed Project Report (DPR) and PMC Charges 2.0%	2200000.00
						Sub Total	109993580.25
						Miscellaneous and unforeseen charges etc.L.S	6419.75
						Grand Total	110000000.00

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

TECHNICAL SANCTION

Rs: 91350491/- Rs Nine crore thirteen lakhs fifty thousand four hundred ninty one only is accorded under the head:

By CE(R.R.N.) P. N. 22-23

Registered as CE (R.R.N) No: 68/22-23 subject to conditions contained in enclosed memo No: 68/22-23 Dt: 8/7/22

TA

CE (R.R.N.)

ನಂ: 41/22-23 ದಿನಾಂ: 20/09/2022

ರೂ 110000000/-

(Eleven crores only)

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರ

ರಾಜರಾಜೇಶ್ವರಿ

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Executive Engineer
RR NAGARA Division
BBMP

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Authorised Signatory

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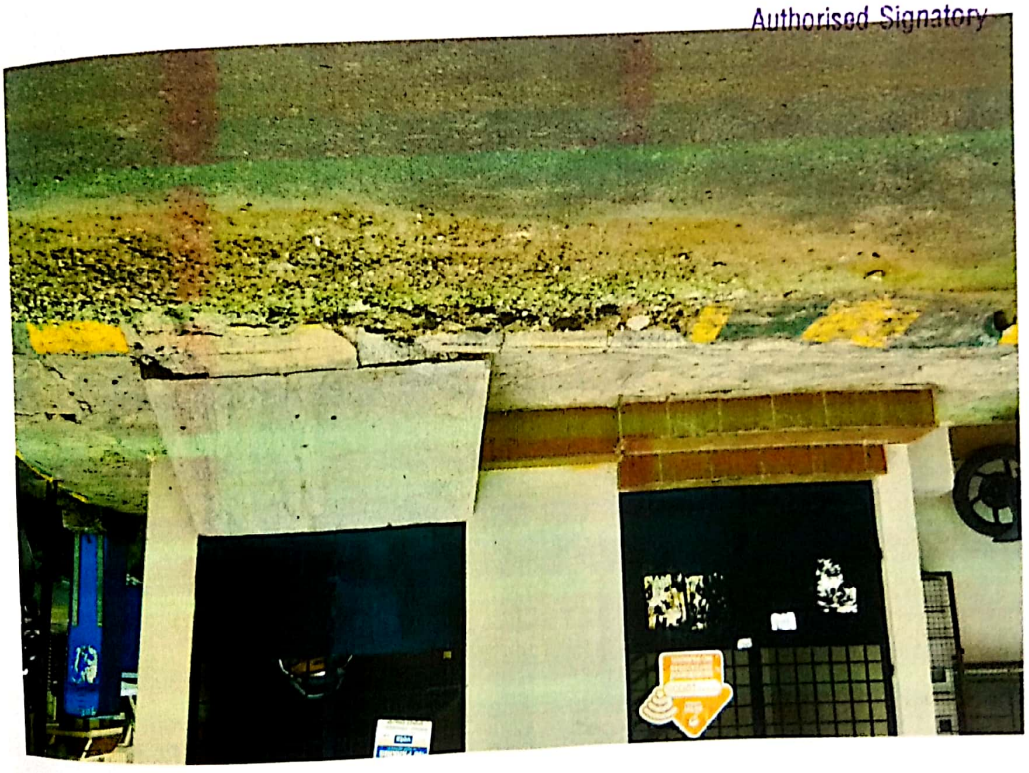

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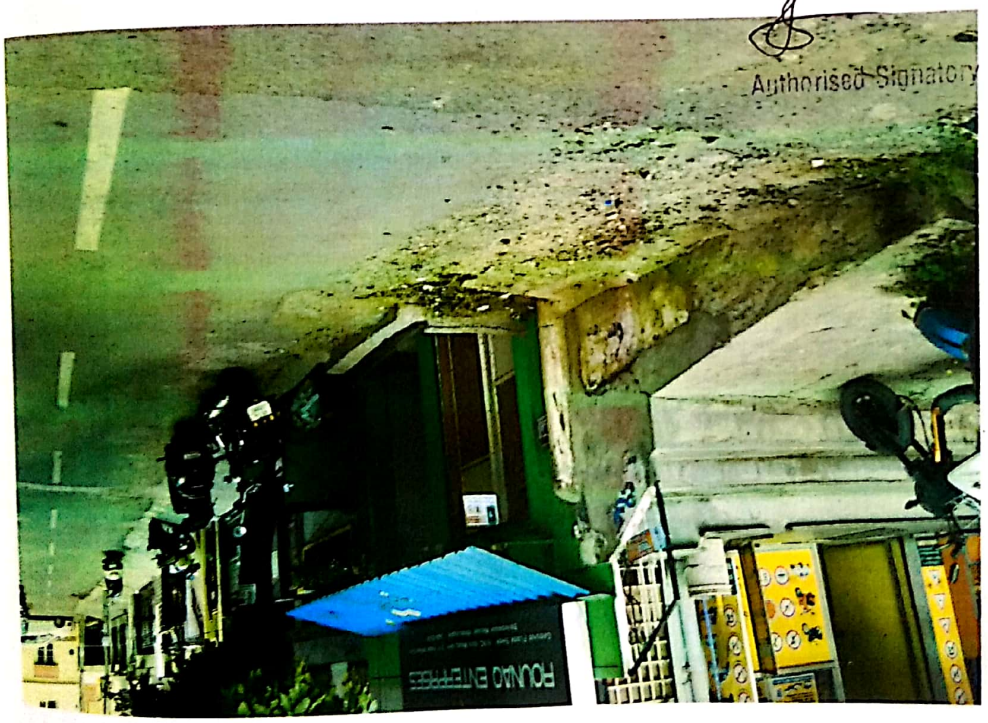

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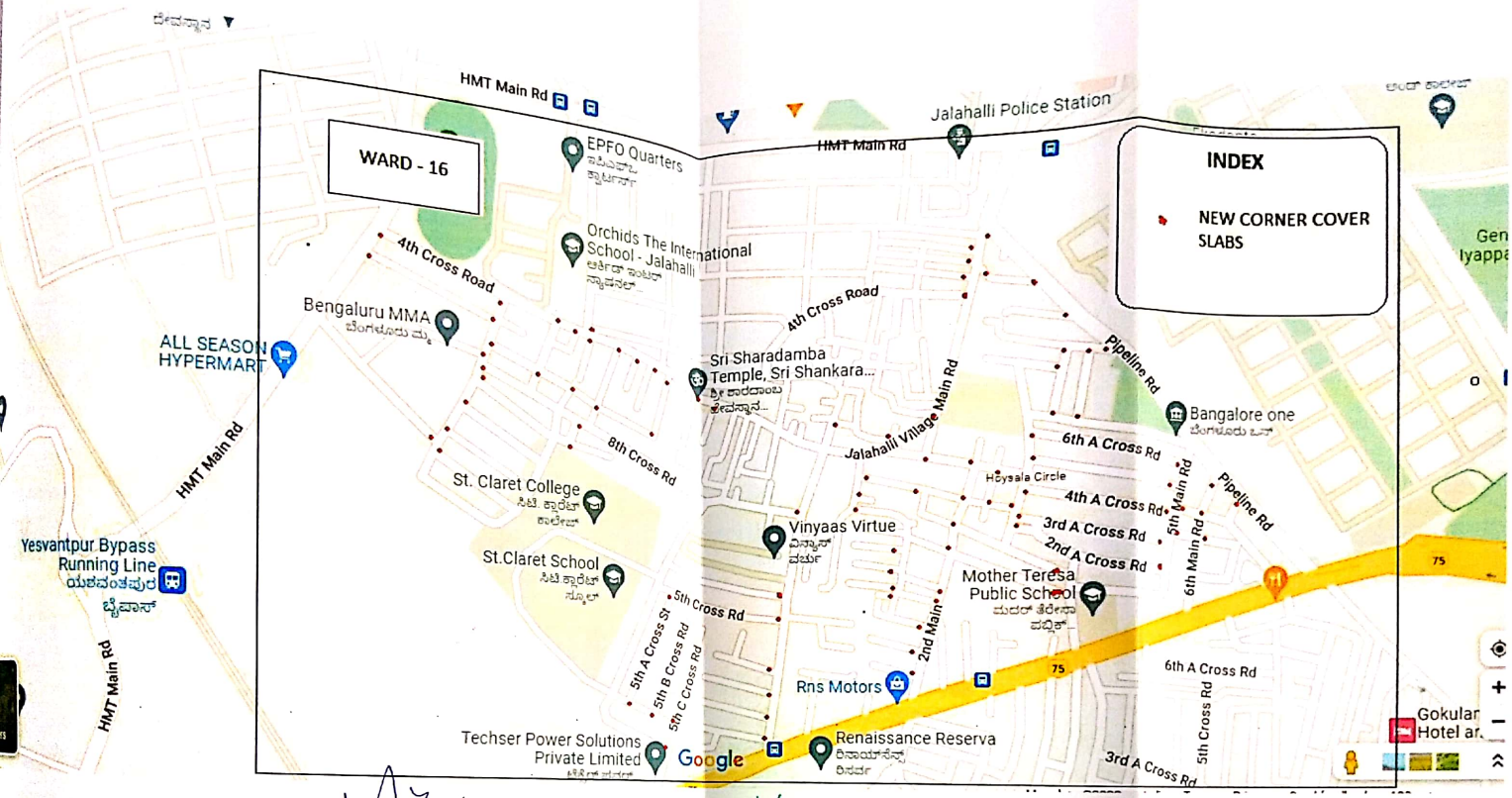

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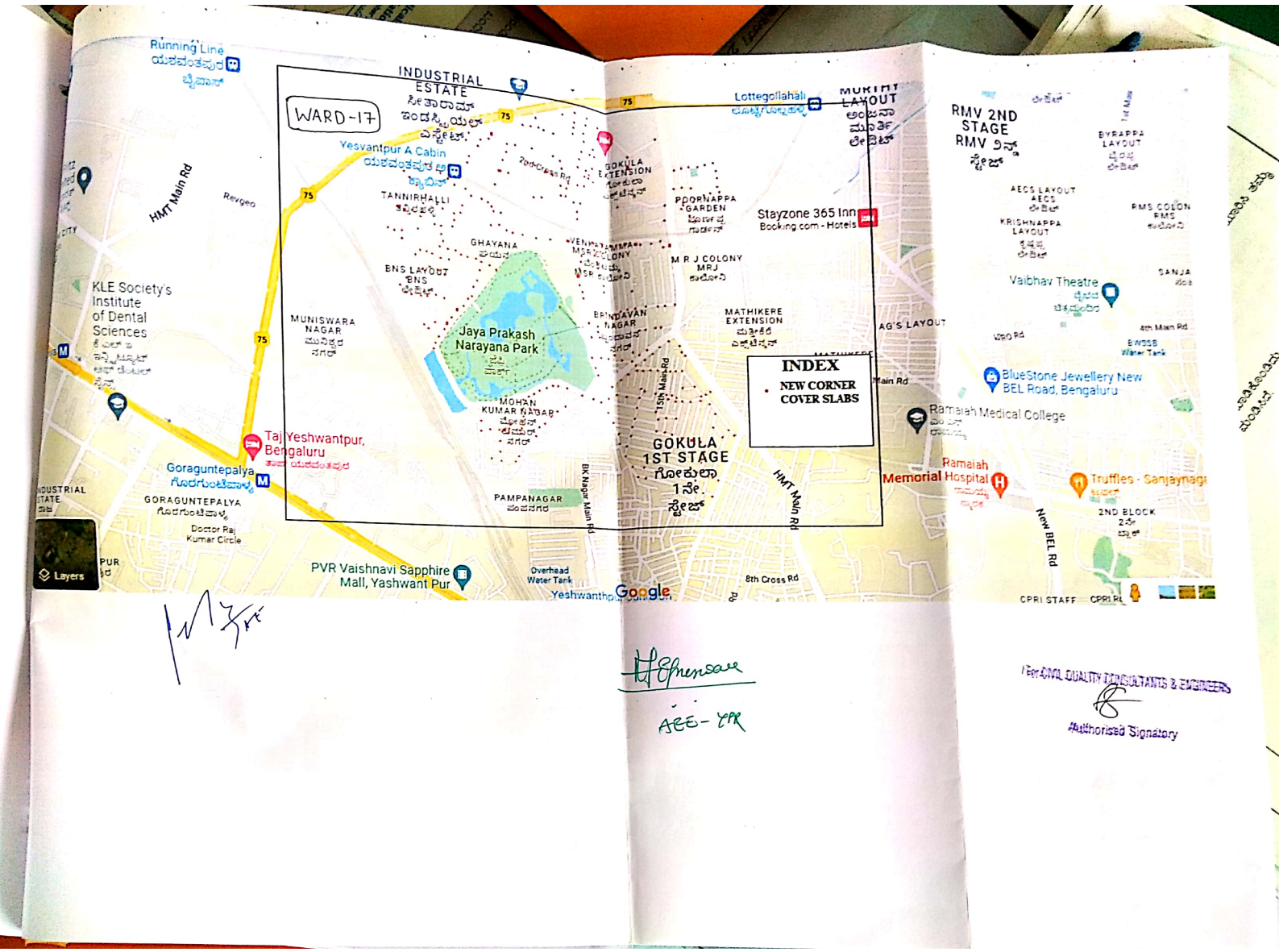

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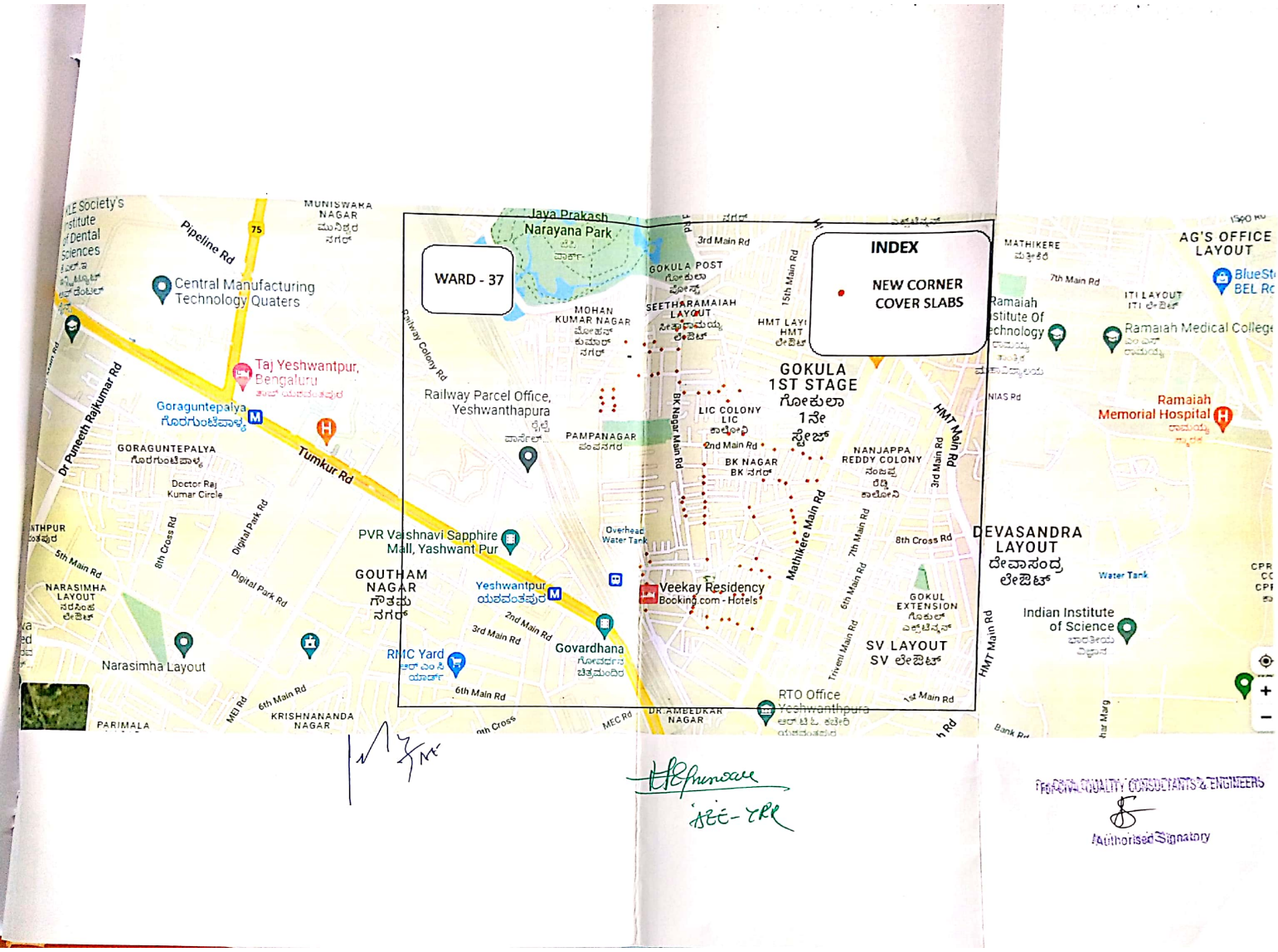

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